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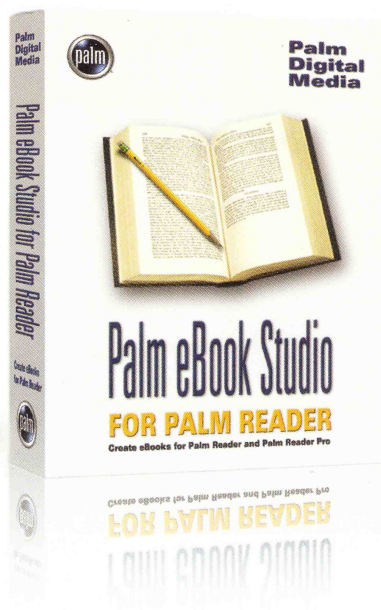
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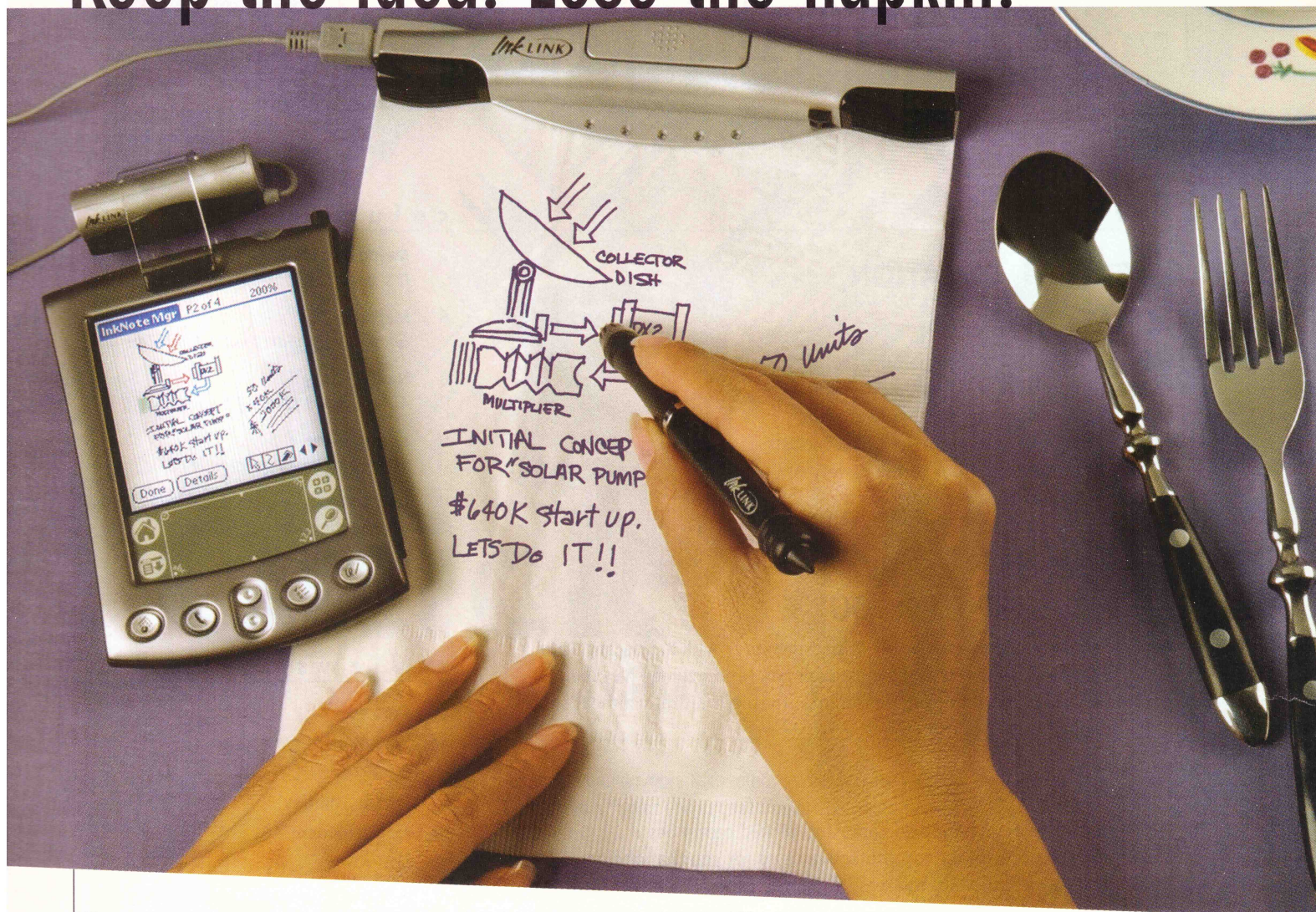
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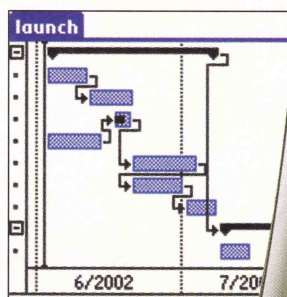
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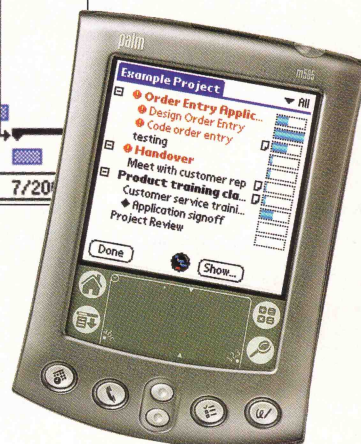
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## Decision Factors

**Y**ou're probably excited about the upcoming release of Palm OS 5. The new OS, combined with the speedy ARM processor, promises all sorts of improved capabilities for Palm Powered handhelds. Full-screen video, digital audio, and more built-in memory are just the obvious improvements; Palm OS developers will do things with this powerful new platform that we so far haven't even imagined.

Depending on how you use your handheld, though, factors like size, battery life, screen design, keyboard availability, and Internet connectivity may be more important in day-to-day use than raw speed. This is why you're seeing new Palm OS 4.1 devices, based on the classic Dragonball processor, introduced on the eve of Palm OS 5's release. Sony, Handspring, Kyocera, Samsung, and AlphaSmart obviously don't think the Dragonball running Palm OS 4.1 is a relic. Building on the existing architecture lets these companies offer value-added features that would be impossible to add to an entirely new operating system at the time of launch.

Our ultimate handheld would have a hi-res color screen, audio recording and playback, a speedy processor, lengthy battery life, an expansion slot, wireless Internet access, and an available full-sized keyboard accessory—all in a small form factor. Interestingly, of the handhelds announced so far, the new Kyocera 7135 Smartphone comes closest to meeting those specifications—all it's missing is the hi-res screen.

Unless we see something truly surprising from another manufacturer (and Palm has hinted at its own smartphone, so we may), the Kyocera 7135 may very well be the handheld I'm carrying day-to-day this holiday season, even though it won't satisfy my lust for ARM/OS 5 power. Because while we appreciate speed, it's the whole package that counts.

### A NEW LOOK AND A NEW MAG

When *Handheld Computing* issue 5.5 arrives in your mailboxes and on newsstands in

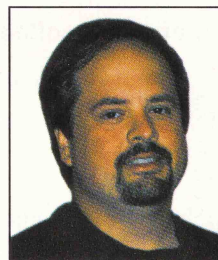
August, be prepared for a whole new look. We've been collecting your feedback in preparation for our first redesign since we gave up the name *Tap Magazine* over two years ago. Expect a better looking, more readable magazine, incorporating many of your suggestions.

Our changes won't stop with just fonts and colors, though. We'll be extending our coverage to encompass "everything handheld." That is, while our focus will remain on handheld computers, we'll be adding coverage of MP3 players, digital cameras, smartphones, and other devices which make logical companions to traditional PDAs. And we'll no longer be looking at Palm Powered devices in a vacuum—expect to see the latest developments in handheld Linux, Symbian, and even Pocket PC systems.

Fear not, though. We won't be diluting our coverage of Palm Powered handhelds as we broaden our scope. In fact, we'll be extending it. Our "Enterprise" section will be launched as its own magazine in September as *Handheld Computing Enterprise and Wireless*. This new publication will cover the latest developments, products, and success stories in the business arena, and keep you up-to-date on the burgeoning wireless market.

With two magazines—*Handheld Computing* focusing on personal handheld use and *Handheld Computing Enterprise and Wireless* concentrating on business—and our numerous electronic newsletters, you'll have more information available than ever before, whether you're a dedicated Palm OS fan or you're interested in the handheld market as a whole. Stick with us—it's going to be an exciting ride!

Denny Atkin  
Editor-in-Chief  
denny@hhcmag.com



#### Publisher

Andrew Eisenberg  
andrew@hhmgroup.com

#### Editorial Director/Editor-in-Chief

Denny Atkin  
denny@hhcmag.com

#### Enterprise Editor

Dave Johnson  
dave@hhcmag.com

#### Art and Production Director

Connie Bigelow  
connie@hhcmag.com

#### Contributing Writers

Jason D'Aprile, Rick Broida,  
Jason Cross, Calvin O. Parker,  
Benjamin E. Sones

#### Copy Editor

Dawn Jepsen

#### News/Product Announcements

editor@hhcmag.com

#### Letters to the Editor

letters@hhcmag.com

#### EDITORIAL OFFICE

Handheld Computing™  
41 Bacon Drive • Shelburne, VT. 05482

#### CORPORATE & ADMINISTRATIVE OFFICES

Handheld Media Group, Inc.  
1670 South Amphlett Blvd. • Suite 214  
San Mateo, CA 94402  
p / 650.378.8522 f / 650.378.8577

#### Chief Executive Officer

Andrew Eisenberg  
andrew@hhmgroup.com

#### ADVERTISING SALES OFFICES

1670 South Amphlett Blvd. • Suite 214  
San Mateo, CA 94402  
p / 650.378.8522 f / 650.378.8513

#### Advertising Account Managers

Doug Chloupek / doug@hhmgroup.com

Stephen Davis / stephen@hhmgroup.com

Christy Eisenberg / christy@hhmgroup.com

#### Marketing and Promotions Manager

Shiloh Rusk / shiloh@hhmgroup.com

#### Subscription Questions and Address Changes

Handheld Computing™  
Post Office Box 921998 • Norcross, GA 30010-1998  
e-mail: subscribe@hhcmag.com  
Subscribe: 888-406-4048 / www.hhmgroup.com

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## THE FINE PRINT

I have a Palm IIIx with the Franklin Planner software, and Quickoffice. I'm using both of them a lot. My biggest wish has been a screen like Handera's that would show a spreadsheet sideways, but with 320x480 resolution. I don't need color, but I must have a better screen. And not a tiny one! I'm 63, and my eyes aren't so good as they were a year ago.

Also, especially for the spreadsheets, I want a faster CPU for quicker recalcs and speedier opening and saves of spreadsheets. This is my dream Palm. Maybe they'll offer one like it this fall. I love that Palm OS, and have resisted even thinking of a Windows CE machine.

—Lou Toth

*We wouldn't be surprised to see a Palm OS 5 device this Autumn that will deliver exactly what you're looking for. As for the small screen size, you might check out the Magnifico magnifier from [www.officeonthegogo.com](http://www.officeonthegogo.com). The editor-in-chief's own 61-year-old dad reports that it makes working with his Visor Prism/Stowaway combination much more pleasant.*

## DID YOU MEAN BLUETOOTH?

Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, Bluetooth, I think that says it all!

—Shaun Miller

## ASK AND WE SHALL DELIVER

I would like to see coverage of GPS navigators. Thanks for the opportunity to voice my opinion. I enjoy Handheld Computing.

—Elizabeth Cloud

*Sure, Elizabeth. Just see this month's cover feature.*

## ZEN OF SMARTPHONES

The answer to which Smartphone is the best was actually provided in the "Inside Mobile Computing" column of Handheld Computing issue 5.2. In his article, "The Zen of Palm", Greg Winton discusses the original tenets on which the Palm Pilot was created, and to which all Palms (and, really, all mobile devices) should subscribe: simplicity, efficiency, and convenience. Applying these very relevant tenets to the big

three Smartphones (Kyocera, Samsung and Handspring), is the fairest way to determine which product, if any, is the winner.

The Samsung i300, lacking true, one handed access, fails in the simplicity, efficiency, and convenience departments. The screen, which is difficult to read in daylight, the side mounted phone button that can cut you off in mid-sentence, and the batteries, which reportedly don't always deliver the advertised talk time, lower the efficiency and convenience scores even further.

The Treo makes a stronger play, securing the one-handed access that is so pivotal to a good smart phone, but too many buttons edge it out in simplicity, and again you'll find that the advertised 150-minute talk time is rarely achievable. And its sealed battery requires frequent access to a power source to recharge.

Hands down, the winner in the simplicity, efficiency and convenience categories is the Kyocera QCP 6035 Smart Phone. It may not be as new, small, sleek, or sexy as the i300 or the Treo, but it has the key features that make it the best convergence of Palm and phone technology.

Simplicity and Convenience: First and foremost, it is a phone with a built in Palm, not a Palm with a built in phone. This not-so-subtle point makes all the difference in the world when it comes to comfort and ease-of-use. With a few well marked smart buttons and a jog dial with an intuitive menu, one-handed access to functionality is assured—a pivotal issue when driving. The real phone keypad is, well, "key," and the Kyocera's easy-to-read grayscale screen provides a crucial element that the i300 does not: you can read it outside, in daylight.

Efficiency: Last, but certainly not least, is battery life. For this reason alone, the Kyocera should be the champ of all phones, smart or otherwise. Meeting the published five, very real, hours of talk time, with no degradation for wireless web use, it seriously outperforms both the i300 and Treo. Plug it in for a recharge at night and you will virtually never run out of power.

For those that simply MUST have a color phone/PDA/MP3 player/universal remote/garage door opener with can opener attachment, and don't mind juggling towheaded, PDA-style access while driving, I highly recommend checking out the newly released O2 XDA Pocket



PC Phone Edition. But be prepared to shell out some serious bucks (\$899.00).

For those that want a well designed phone with a built in Palm that would make any Feng Shui enthusiast proud, the Kyocera Smartphone is your first, best option. And, at \$250 or less, you can afford to talk over lunch.

—Lee D Gedansky

*We're not sure we'd agree about the Kyocera's screen being easy to read—it reminds us a lot of our first-generation Palm Pilots, with its greenish background. But Kyocera has that licked—check out this month's Newsworthy section for more information on the company's third-generation smartphone.*

### CODING STARTS

I would like to start developing programs for the Palm OS computing platform, but I really don't know where to start. I know where to go to get

information, but the information available seems to be only for experienced and senior-level developers. Knowing a little bit of everything and not mastering anything, it is very difficult for me to get the right information in the right sequence. I would like to see some articles for inexperienced programmers, and tips on development tools and best reference books to purchase, etc..

—Madeline

*You're in luck, Madeline. We recently launched Handheld Computing Developer, a free web site which can be reached at [www.hhcdeveloper.com](http://www.hhcdeveloper.com). There's a mix of information for beginners (including a "getting started in Palm programming tutorial series") and experts alike on the site. Even better, there's also a message board where you can ask questions of experienced Palm OS developers.*

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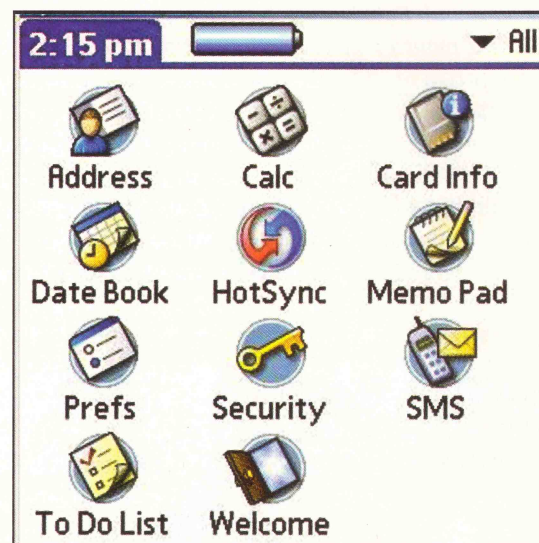


## Palm OS 5 Goes Gold

**O**n June 10, PalmSource, Inc. announced that it had shipped Palm OS 5 to its licensees and developers, opening the door to the second generation of Palm Powered handhelds. At first glance, Palm OS 5 is nothing revolutionary—its appearance is little-changed from OS 4.1. But don't let the look fool you—PalmSource has put a Ferrari engine underneath the unassuming "Saturn sedan" user interface.

Palm OS 5 is designed to run on ARM-complaint microprocessors from companies such as Intel, Motorola, and Texas Instruments. Current Palm OS handhelds use Motorola Dragonball processors, based on the 68000-series processor used by early Macintosh models and the classic Amiga. When the original Palm Pilot was introduced, this was an amazingly powerful CPU for a handheld, but today its 1980s-technology roots feel more evident. The faster, more modern ARM processor design will allow upcoming Palm OS handhelds to crunch data faster and more easily address larger amounts of memory. It will also dramatically improve graphics and audio capabilities without the need for the extra hardware that Sony has included in its high-end Clie models to support multimedia features.

The OS does have a few new capabilities. Support for hi-res screens, like those found on the Clie, is now a standard Palm OS feature. Sound capabilities are dramatically enhanced—hopefully the anemic bleeps and bloops and inaudible alarms on most current handhelds will be a distant memory soon. Support for 802.11b and Bluetooth wireless cards is now part of the operating system. Both local and online security features have been beefed up to enterprise standards, including the addition of Secure Socket Layer services. PalmSource touts a slightly enhanced user interface, with better icons and hi-res fonts, as well as color themes.



Palm OS 5's user interface (top) is little changed, but icons look much better than in the previous version (below).



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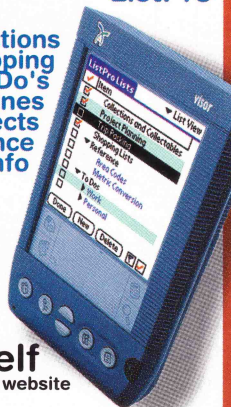
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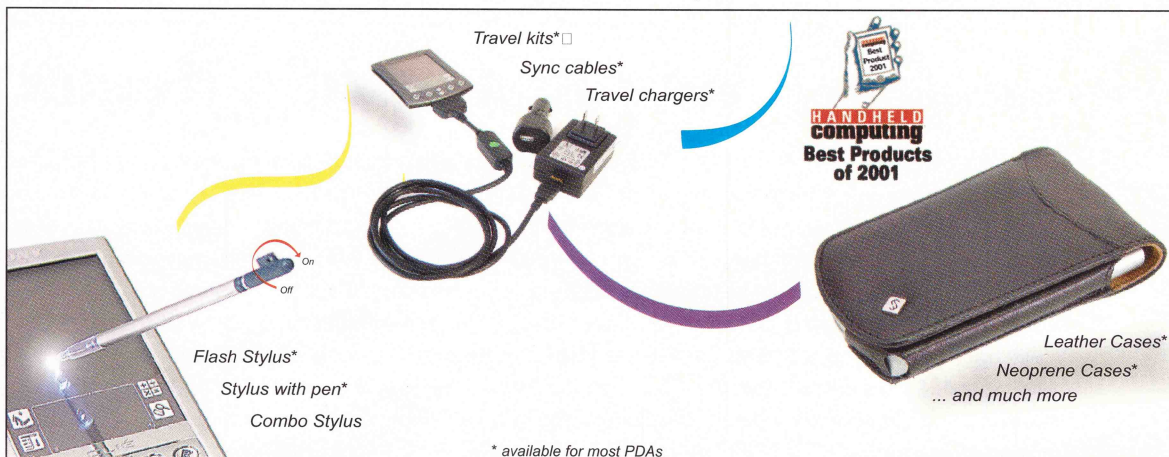


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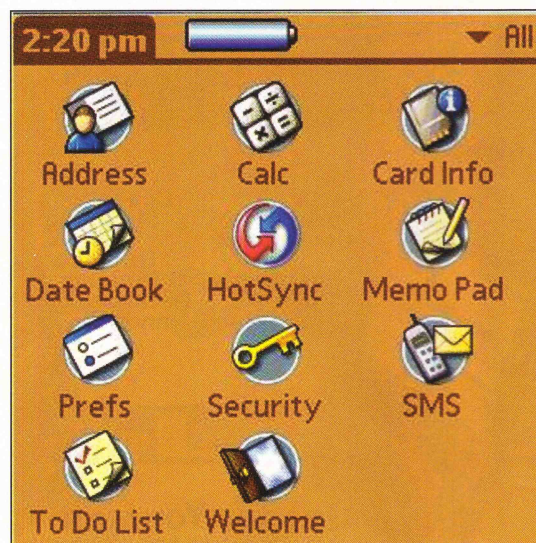
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An important element of Palm OS 5 is its ability to run programs designed for older versions of the operating system. Programs written to follow all the Palm OS development "rules" should work fine. Games and utilities that take "shortcuts" in an effort to increase performance will need to be revised to work on the new handhelds. Current Hackmaster hacks won't work, but there are provisions for creating hack-like utilities to work with the new OS. Linkesoft, for example, has already released a Palm OS 5 version of its popular Screenshot Hack. Palm has had a compatibility and testing program running for many months, so the vast majority of programs that are still in active development should be fully Palm OS 5-compatible before the new ARM handhelds even hit the market.

So now that we have an operating system, where's the hardware? No Palm OS licensee has announced new ARM-based hardware yet. Only Palm, Inc. has definitely committed to releasing Palm OS 5 devices this year, stating that we can expect devices based on Texas Instruments ARM chips by Autumn. While no specifics have been announced, Palm's interim CEO Eric Benhamou did leak some general details about upcoming handhelds during a speech at the CIBC World Markets' communications conference in New York on June 11. One device will be targeted at beginners and designed to be sold for under \$100, while another will offer Smartphone capabilities. No details were given on a third handheld, but logical extrapolation indicates that it will be an m515-style device boasting an ARM processor, a hi-res 320x320 screen, and



Palm OS 5 lets you configure your color scheme.

enhanced audio capabilities. Handspring has stated that it will have Palm OS 5 devices, but not until 2003.

While OS 5.0 and ARM are clearly the future of the Palm Powered platform, we wouldn't suggest writing off Dragonball-based handhelds just yet. A Sony NR70, with its 66MHz processor and multimedia hardware, is likely to keep pace with the first generation of ARM devices in many operations, for instance, while maintaining better compatibility with older programs. We'll have a full hands-on comparison of the new Palm OS 5 devices with "classic" Palm Powered handhelds as soon as we can get our hands on one.

## Increase Your Handheld's Memory

Despite the availability of huge memory cards for today's handhelds, power users can still find themselves running out of memory. Many applications and databases—particularly apps that haven't been updated in the past year or so—do a poor or nonexistent job of supporting the VFS file system used to store data on external memory cards. For many users low on free RAM, buying a new 16MB handheld is a tempting proposition. But what if you could double your handheld's internal memory for about \$100?

Tony Rudenko offers just such an upgrade service via the PalmPilotUpgrade web site. Along with existing upgrades to 8 or 16MB for various Visor and Palm III/V models, the company recently added a number of Sony Cliés, the Handera 330, and the Palm m130, m500/505, and i705 to the list of upgradeable handhelds. How much memory you can add depends on your handheld's processor. Original Dragonball series devices such as the Palm III and the Handspring Visor can only address 8MB of RAM. Newer DragonballVZ units such as the Handspring Visor Prism and the Palm m130 can support 16MB.

We used the PalmPilotUpgrade service to upgrade our Sony N710C from 8MB to 16MB of main memory (\$109), and add an additional 4MB of Flash ROM as well (\$69). The service generally takes



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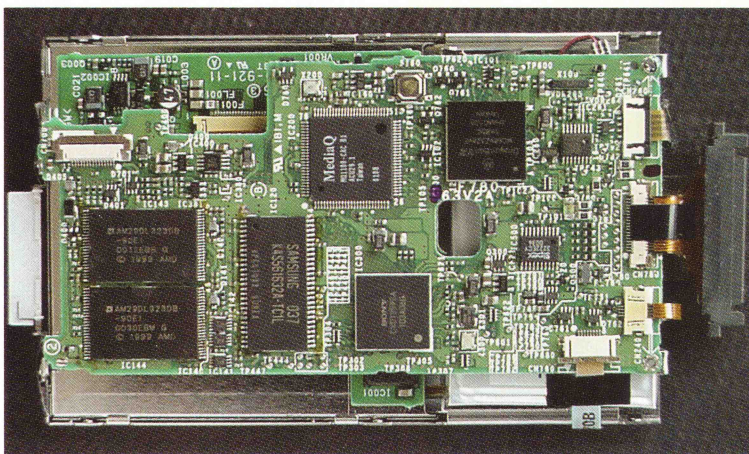
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This Clie N710C has been neatly upgraded to 16MB RAM and 8MB Flash ROM

about three to four days, which includes a 48-hour burn-in/test period. When we received our N710C back, there was no evidence of it having been opened—everything looked factory fresh.

Inside, though, our venerable N710C was like a new handheld. Not only did we have 15MB of free memory (Sony steals a megabyte for system functions, so even an original N710C has only 8MB free), but 8MB of flash memory as well, leaving over 4MB of flash available for storage. We used JackFlash ([www.brayder.com](http://www.brayder.com)) to move WordSmith, AvantGo, and a number of other applications to flash memory, where they worked just fine. Taking both main memory and flash into account, we had over 19.5MB of free storage on our Clie.

For a full list of modifications and repairs offered by the service, see [www.palmpilotupgrade.com](http://www.palmpilotupgrade.com).

JackFlash		▼ All in Flas	
Name	Size	▼	
DayNotez	164K	▼	Flash
FineType™ Ma...	96K	▼	Flash
McFile	199K	▼	Flash
McFileLic	1K	▼	Flash
McText	12K	▼	Flash
SpellSmith	39K	▼	Flash
WordSmith	543K	▼	Flash
Update		Free RAM: 1117...	

With JackBack, you can store an additional 4.5MB of programs in Flash memory.

JackFlash		▼ All in Flas	
Name	Size	▼	
DayNotez	164K	▼	Flash
FineType™ Ma...	96K	▼	Flash
McFile	199K	▼	Flash
McFileLic	1K	▼	Flash
McText	12K	▼	Flash
SpellSmith	39K	▼	Flash
WordSmith	543K	▼	Flash
Update		Free RAM: 1117...	

A 16MB upgrade is just the solution for a crowded handheld.



Sony's updated slimline PDA adds MP3 playback and a super-speedy processor.

## Sony Clie PEG-T665C Announced

At the rate the company is shipping new devices, Sony should consider starting a "Clie of the Month Club." The latest addition to its line, the T665C, replaces the similar T615C. The significant enhancements to this 16MB model are an improved screen (essentially a 320x320-pixel version of the superb screen introduced on the NR70), MP3 music playback, and a 66MHz processor. Battery life, however, is among the shortest we've seen for a Palm OS device—Sony rates it at about five hours with the backlight off (an unlikely scenario), or four hours of MP3 playback with the display disabled. Look for a hands-on test in our next issue.



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## Kyocera Announces Third-Generation 7135 Smartphone

If you've avoided smartphones so far due to their limitations in comparison with dedicated handhelds, Kyocera's 7135 may be just what you were looking for. This third-generation phone is an even bigger jump over the popular Kyocera 6035 smartphone than that phone was over the first Palm OS phone, the brick-like PDQ. Along with color, a smaller form factor, audio support, and a number of other enhancements, the 7135 is the first Palm OS smartphone we've seen with what we consider a must-have feature: an expansion slot.

The 7135 resembles a Motorola Startac on steroids. This flip-style phone puts the Graffiti area on the bottom portion of the flip and its new 65,000-color screen at the top, leaving room for a full-size phone keypad as well. When closed, the device measures 3.97x2.43x1.17 inches and weighs 6.6 oz. It's somewhat thick, but much more pocketable than the 6035.

On the PDA side of things, the 7135 includes Palm OS 4.1, 16MB of RAM, a 33MHz DragonballVZ processor, and an SD/MMC expansion slot. Along with the voice-recording features introduced in the 6035, the 7135 also adds an MP3 music player and a stereo headphone jack. HotSync is now via a USB cradle. Kyocera will be releasing a version of the Stowaway keyboard for the 7135, and owners of the 6035 keyboard can purchase an adapter that will allow it to be used by the new handheld. With a Stowaway and the ability to back up your data on an SD memory card, the 7135 may very well be a viable laptop replacement for many users.

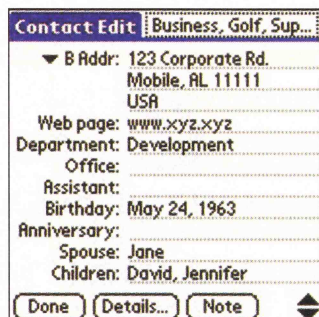
The 7135 is a tri-mode CDMA phone, offering superb coverage in North America. It supports the

CDMA 2001x standard, which is capable of data rates of up to 153Kbps. (Speeds of 60 to 80 Kbps are more typical.) Keep in mind, though, that this is a new service that is just starting to roll out, and these speeds are unlikely to be available for some time. A small LCD on top of the phone provides signal, battery charge, time, and caller ID information. Talk time from the removable battery is 3.2 hours, with 123 hours of standby.

Bundled software includes Eudora email, web clipping support, an SMS messaging app, and an HTML web browser custom-designed for the phone. The phone's price will be up to the cellular carriers selling it; it's expected to be under \$600. For more information, see [www.kyocera-wireless.com](http://www.kyocera-wireless.com).



Kyocera's new smartphone features an SD/MMC expansion slot.



KeyContacts is a must-have for serious Outlook users.

## KeyContacts Enhances Outlook Synchronization

If you take full advantage of Microsoft Outlook's address book features, you've probably been frustrated by the limited number of fields that transfer over to the Palm OS Address Book on HotSync. If so, don't miss Chapura's \$24.95 KeyContacts, which includes a replacement for the standard Address Book that supports 40 additional contact fields such as multiple addresses and email fields, assistant's name, job title, and so on. This new app supports over 250 categories, and lets you assign multiple categories to each contact. For the full scoop and to download a trial version, see [www.chapura.com](http://www.chapura.com).



# Does Marketing Work?



*"We tapped into Handheld Computing more than four years ago and it remains central to Cutting Edge Software's advertising. Handheld Computing publications helped Quickoffice become and stay a top selling handheld office suite, by allowing us to target mobile device users and professionals who purchase software."*

**Paul Moreton,  
Vice President,  
Marketing  
and Sales**

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computing**

**HANDHELD  
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computing**



**PDA Buzz**

**CLiÉ**  
Software and Accessories



by Benjamin E. Sones

## This means war!

**E**ver get the itching for a good fight? Not fisticuffs in some back alley, but the kind of fight that pits you against legions of wizards, giant robots, and a smattering of the walking dead? There are many slick battle games available for the Palm OS; here are four of the best.

GoTactics' *Fantasy Realms* derives a good dose of inspiration from the card game *Magic: The Gathering*, with a wargame twist. Play revolves around a "deck," from which you can draw land tiles, tile improvements, creatures, and spells each turn—for a price. Land tiles expand your empire, and allow you to field any creature native to that terrain in battle. Improvements increase your income, which in turn allows you to buy more land tiles and draws from the deck. Your enemies will try to take your land tiles (and any improvements that you have built upon them) away from you. Be careful: the AI has a penchant for bluffing. Keep an eye on this developer; GoTactics is currently working on another Palm game called *X-Force*, a tribute to the PC classic *X-Com*.

Speaking of *X-Com*, you might want to check out iZ Software's *War of the Wizards*. What is the connection? The game is based on an old ZX Spectrum game called *Chaos*, written by *X-Com* co-creator Julian Gollop. It is a bit like chess... or it would be, if chess were played with four players and each started with only a single piece. You begin the game with your wizard, and each turn you can cast a spell (which may succeed or fail) and move any pieces that you have on the board. Most spells summon new creatures, which then remain in play until they die. You can opt to summon imaginary creatures, a clever bluffing tactic. Other spells deal damage directly to enemy wizards, summon magical items that enhance your abilities, or allow you to disbelieve your enemies' imaginary creatures. This fast-paced game unfolds differently each time you play.

*Iron Strategy*, by Russian developer InterSoft, is another "quick and dirty" tactical game, with giant robots instead of wizards and goblins. You start each game with a team of robots, each with a unique set of abilities, and you need all of them to defend your base. Lose it, and you lose the game. Destroy the enemy base (or all of his robots), and you win. The game comes with only five maps, but why complain? It's free.

If you are in the mood for something different—very different—try *Tactorus*. The developer, Thomas Gamet, does not have a website, but you can find the game on PalmGear.com ([www.palmgear.com](http://www.palmgear.com)). Each side gets an army of pieces with varying abilities, a "rock, paper, scissors" relationship that determines what each piece can capture. You queue up orders for all of your pieces, your opponents does the same, and then

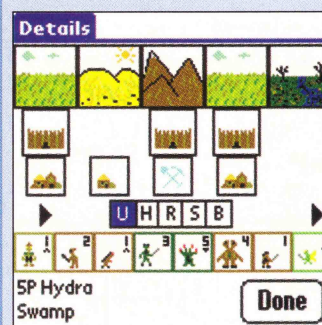
## NOW PLAYING

### Fantasy Realms 1.2

Price: \$10.00

Developer: GoTactics

[www.gotactics.com](http://www.gotactics.com)



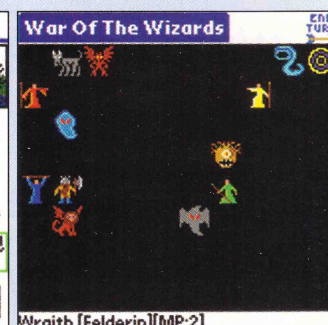
*Magic: The Gathering* meets wargaming in GoTactics' *Fantasy Realms*.

### War of the Wizards 1.3

Price: \$14.95

Developer: iZ Software

[www.geocities.com/iz\\_software/](http://www.geocities.com/iz_software/)



*War of the Wizards* is a remake of an old game for the ZX Spectrum called *Chaos*.

### Iron Strategy 1.21

Price: Freeware

Developer: InterSoft

[www.palm.inetsoft.ru](http://www.palm.inetsoft.ru)



*Iron Strategy* is a quick and dirty freeware game from Russian developer InterSoft.

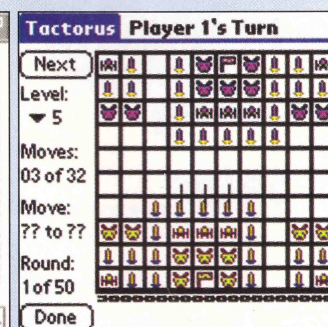
### Tactorus 3.7.1

Price: \$10.00

Developer: Thomas Gamet

[tactorus@cfl.rr.com](mailto:tactorus@cfl.rr.com)

Available at [PalmGear.com](http://PalmGear.com)



*Tactorus* is a chess-like game that features simultaneous moves.

the game moves all of them simultaneously and removes any captured pieces from the board. Optional rules add supply, high ground, and chain moves, but even that basic game is deviously compelling.

Well? What are you waiting for? Charge!



# two mad games



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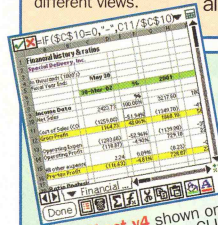
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**Bottom:** The Split Screen view in Action Names Datebook with the new text wrapping — just one of the many different views.



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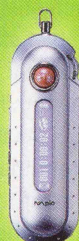
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by Jason Cross

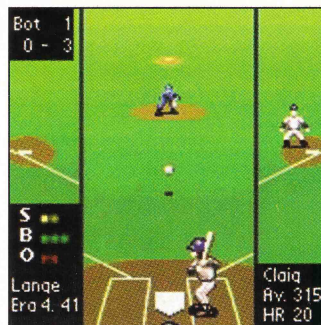
# Sports Fan Favorites

**S**ports fans are everywhere, and Palm developers are no exception. There's a cornucopia of applications and databases covering sports from archery to soccer. Let's take a look at some of the stuff sports nuts should have on their handhelds.

Perhaps the most common sports app is the league schedule. It's not exactly the kind of info you need to have on the go, but nonetheless, you can find league schedules for the NBA, NCAA, NFL, NHL, MLB, and every other acronym you can think of. They're typically updated a few times a year to reflect any mid-season changes. Some are stand-alone apps, while others are databases for shareware database apps. There are so many that we'll just point you to Palmgear.com's sports section to find the schedules for your favorite leagues.

Nobody loves stats as much as baseball fans. Stat fans simply must check out David Stark's impressive Baseball Encyclopedia 2.0. It's got statistics for every player and team, covering seasons from 1875 through 2001. You can look up favorite players, check out league standings or World Series results for any season, and find the all-time leaders in numerous of different pitching or batting categories.

Golf is one sport certainly well represented on the Palm OS. It's one of the few sports where you can actually use your Palm



From those Baseball nuts in Japan comes one of the best Palm games around, DaDa Baseball.



Maybe it's not a real sport, but this Air Hockey game is too much fun to ignore.

device while you play, and even improve your game in doing so. There are numerous apps for scorekeeping, club selection, and so on. Richard Hocking's nice little freeware Golf Scoring System 3.2 is one of the best. It's about 40K, and it lets you save info about multiple courses, track club yardage, keep foursome scores, and more.

And what would any discussion of sports applications be without sports games? There is certainly no shortage of them. Stefan Komilev's 3D Tennis is surprisingly addictive and a pretty good bargain at only \$8.

Not exactly sports, but sports-like, is Paul Ellam's Air Hockey 3D, which offers crisp graphics and excellent control. The Palm stylus makes for a great air hockey controller. Multiple difficulty levels, a two-player mode, infrared support, and a "brick break" game make for a nice little package that's well worth the \$8 to register.

If you'd rather hit the links, you'll want to pony up \$15 to register the excellent 4Play Golf Sim & Designer, which are actually two separate applications. The pseudo-3D golf game is rather slick, and you'll have good fun with the 18 holes included. The real gem is the hole designer, which will even let you beam custom holes to other Palm users.

At the expensive end of the spectrum comes DaDa Baseball, from the baseball-crazy Japanese at DaDa Palm Games. It's easily one of the most attractive and full-featured Palm OS games of any type, and offers full season play with 30 teams. It's \$20 well spent for baseball fans, or just those looking to kill a few hours on the plane. There's a free demo you can try first.



It's not much to look at, but 3D Tennis is surprisingly addictive.

## SPORTS ROUNDUP:

**Baseball Encyclopedia 2.0**

David Stark

[www.freewarepalm.com/internetpqa/baseballencyclopedia.shtml](http://www.freewarepalm.com/internetpqa/baseballencyclopedia.shtml)

**Golf Scoring System 3.2**

Richard Hocking

[people.ce.mediaone.net/rhocking/pilot.htm](http://people.ce.mediaone.net/rhocking/pilot.htm)

**3D Tennis**

PDA 3Dware

[www.pda3dware.com](http://www.pda3dware.com)

**Air Hockey 3D**

Ellams Software

[www.ellams.force9.co.uk](http://www.ellams.force9.co.uk)

**4Play 3D Golf Sim & Designer**

Palm4Play

[www.palm4play.com](http://www.palm4play.com)

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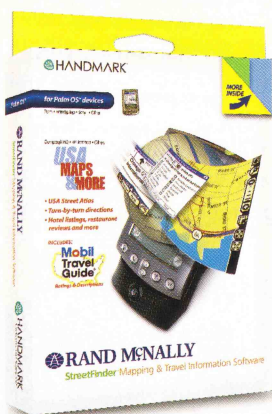
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# Location, Location

With your handheld, a GPS module, and the right software

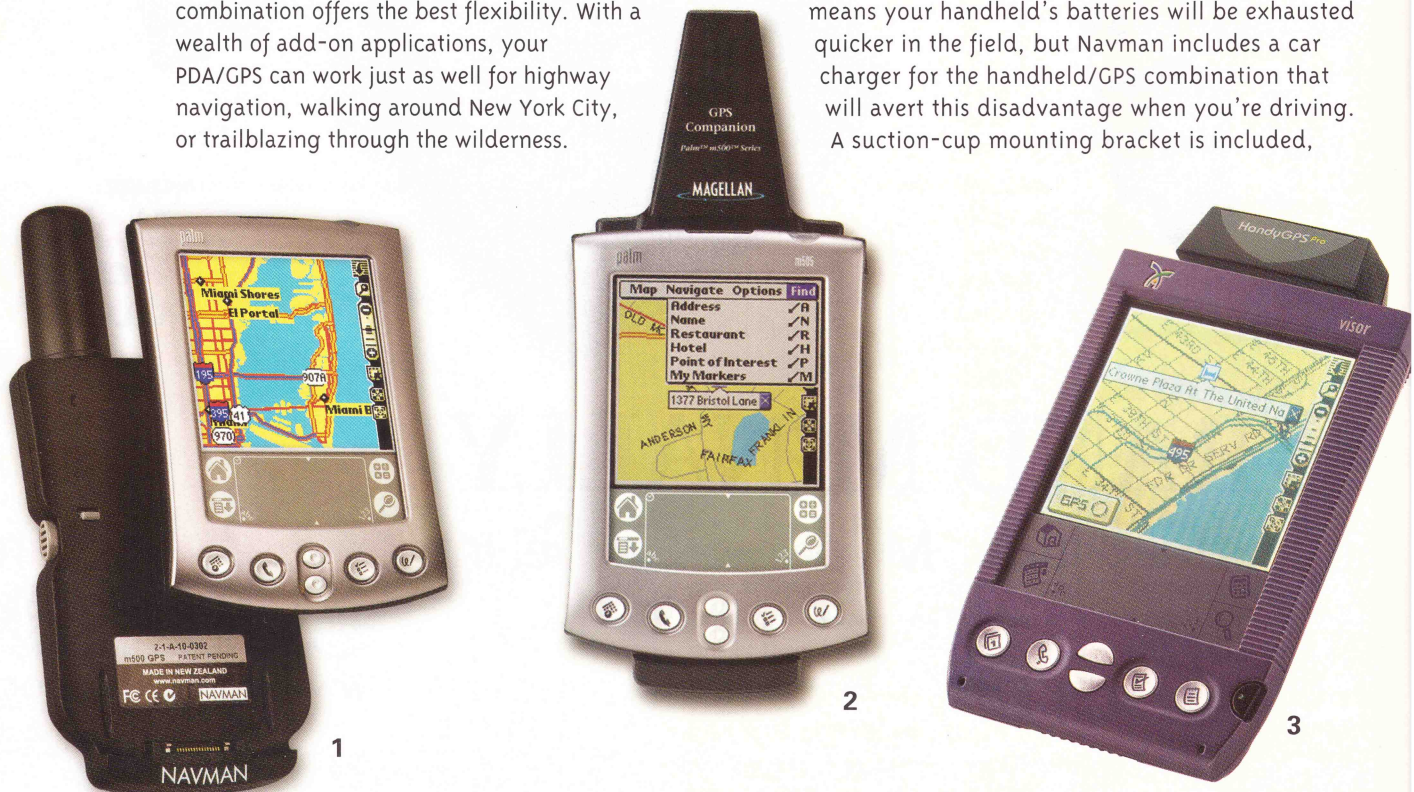
**A**ll it took was an hour in Munich to make me a GPS fan for life. Timothy Leary and M.C. Escher working together could never have dreamed up anything as nonsensical as Munich's road system. Without the lifesaving combination of a Visor Platinum, a Magellan GPS Springboard, and TomTom CityMaps software, I'd probably still be trying to find our way back to the Mittlerer Ring today.

Whether you're in an unfamiliar European city on vacation, hiking through Adirondack trails, or just trying to find a coworker's house for an obligatory office party, GPS can be a lifesaver. By comparing signals from a constellation of orbiting Global Positioning System satellites, a GPS receiver can pinpoint your location to within three meters or less. You can buy a stand-alone GPS receiver—and many aren't much larger than the clip-ons for various handhelds—but in our experience the PDA/GPS combination offers the best flexibility. With a wealth of add-on applications, your PDA/GPS can work just as well for highway navigation, walking around New York City, or trailblazing through the wilderness.

If you experimented with first-generation Palm OS systems and were disappointed by their limitations, you should give the current models a look. The software has improved significantly over time, but more important, today's models support expansion memory. With an 8MB device, you could carry only a few maps—and you were hosed if you wandered off your planned path into an unmapped area. With the ability to load today's handhelds up with 128MB or more of maps, you'll have plenty of room to bring along road, topographic, and city maps for all your potential destinations.

## GPS on the Palm

The Navman GPS m Series works with the Palm m125/m130 and the m500 series. Slightly smaller than the competing Magellan GPS, the Navman has no batteries; it draws power from the handheld. This means your handheld's batteries will be exhausted quicker in the field, but Navman includes a car charger for the handheld/GPS combination that will avert this disadvantage when you're driving. A suction-cup mounting bracket is included,





# tion, Location!

ht mapping software, you'll never get lost again.

giving you everything you need for vehicular navigation.

The Navman supports NMEA-standard data, so it's compatible with third-party GPS-savvy applications. It was the quickest of all the modules we tested in getting a satellite fix, usually determining its initial location in less than a minute, with subsequent fixes taking just a few seconds. Like most of the GPS modules reviewed here, Navman includes the excellent Rand-McNally StreetFinder Deluxe Travel Navigation Software bundle, which boasts detailed maps for both Palm and Windows use.

Thales Navigation's Magellan GPS Companion for Palm m500 Series (\$199) is a snap-on module powered by a pair of AAA batteries, which are rated for 12 hours of use. Bundled software includes Rand-McNally StreetFinder Deluxe and the NAV Companion GPS utility. A bundle with European mapping software is also available, and the GPS can use any NMEA-compatible mapping program.

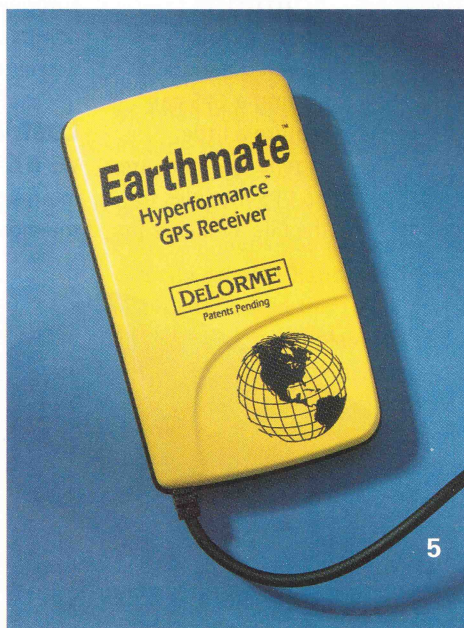
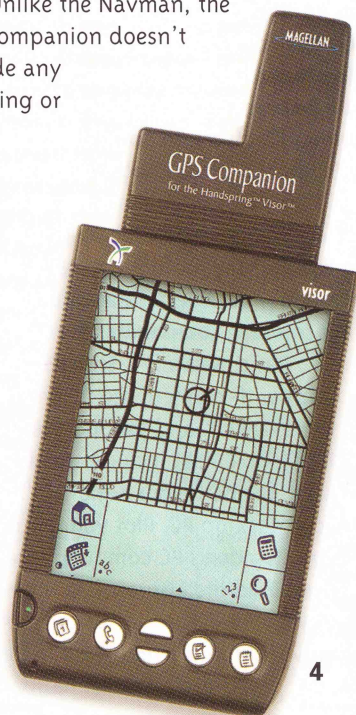
Unlike the Navman, the GPS Companion doesn't include any charging or

mounting accessories, but the manufacturer offers an optional car charger (\$19.99) and mount (\$49.99). For long hiking journeys, we'd give the GPS Companion the edge since it uses easily replaceable AAA batteries and your total battery life between handheld recharges will be longer. For automotive use, the Navman is a better value.

## Springboard GPS

Because you can't plug in a memory Springboard and a GPS module simultaneously, Handspring Visor users face a limit in the number of maps that can be installed simultaneously. A Visor Pro with 16MB is obviously the best choice; a 2MB Visor's going to be too constricted. For our own journeys, we stored extra maps on a 16MB Flash Springboard and copied them to the Visor individually as needed.

Don't confuse Nexian's HandyGPS Pro (\$229.99) with the basic HandyGPS. The original model had more problems finding itself than a hippie existentialist. The new model is a "pro" at locking up the GPS constellation, usually triangulating its location in under 60 seconds. This updated GPS boasts a



- 1 The Navman GPS m Series works with the Palm m125, m130, and m500 series handhelds.
- 2 The Magellan GPS Companion for the m500 series includes Rand-McNally's StreetFinder Deluxe mapping software.
- 3 The HandyGPS Pro Springboard is a compact add-on for Handspring's Visor; here it's running StreetFinder Deluxe.
- 4 The Magellan GPS Springboard includes Quo Vadis navigation software.
- 5 Delorme's Earthmate is an external serial GPS designed for use with PDAs or laptops.



removable, rechargeable Lithium-Ion battery rated for up to 10 hours of continuous use; additional batteries are available for \$29.99. While we appreciated the long life of the rechargeable battery, we were disappointed that Visor Edge, Pro, and Prism owners can't recharge the battery in their cradles. The HandyGPS Pro includes an AC power brick, and a car charger is available for an additional \$19.99.

HandyGPS Pro comes bundled with StreetFinder Deluxe 2001, and it has basic GPS data utility software built in to the module. It supports both NMEA and Navicom protocols. For car use, Nexian offers an optional \$34.99 magnetic antenna that will prevent you from having to put the Visor on your dashboard to get a lock.

The Magellan GPS Companion Visor (\$149) was the Springboard module that rescued us from the land of the lost on our aforementioned trip to Germany. This NMEA-compatible Springboard is similar in capabilities to the Palm version reviewed above, but ships with MarcoSoft's Quo Vadis 2.0 software. It's slightly larger than the HandyGPS Pro, and it runs on a pair of AAA batteries. The mapping software's geared more towards in-town navigation, so long-distance travelers will want

to investigate third-party mapping programs. (We used TomTom CityMaps and TomTom RoutePlanner Europe during our testing.)

### Other GPS Solutions

For other Palm Powered handhelds, adding a GPS can require a little ingenuity. There are no GPS modules for the Clie available in

the USA, for instance. Sony makes a GPS Memory Stick, but it's currently available only with Japanese software, and it can't use third-party English mapping software as it doesn't follow the NMEA standard.

If you have a Clie, Treo 90, Palm-compatible Smartphone, or an older handheld, you might consider Delorme's Earthmate. This GPS module costs just \$129.95, and works with just about any handheld, connecting via a HotSync-to-serial port adapter. Unfortunately, it doesn't support the NMEA standard, as it's primarily designed for use with Delorme products. However, some third-party Palm OS mapping programs such as Quo Vadis and TripPilot have Earthmate support.

Another solution is to connect a stand-alone GPS externally. We used the Magellan SporTrak Pro (\$299), along with a serial cable adapter, to add GPS functionality to a Clie N760C. Other than the added bulk of a second device and serial cable, the combination worked just as well as a dedicated PDA GPS module. The SporTrak Pro is a versatile, compact, standalone device, but it requires a PC to download more detailed maps or to create routes. Connected to a handheld, you can use it to feed location data to any NMEA-compatible Palm OS app. The less expensive SporTrak (\$169) works just as well paired with a PDA, where its lack of additional memory for downloading street-level and topographical maps isn't a factor.

Transplant Computing has a CompactFlash GPS card (\$199) for the TRGPro, Handera 330, and Pocket PCs. This NMEA-compatible card works with Mapopolis, Handmap, and TripPilot for U.S. travel, and DigiMap for European navigation. Even more intriguing is the company's upcoming Bluetooth GPS, which will connect wirelessly to any Bluetooth-compatible PDA or laptop.

### Lost Without a Map

We'll be covering handheld mapping software in detail in an upcoming issue; for now, let's take a quick look at the most intriguing software companions for GPS users.

Rand-McNally's StreetFinder Pro ships with many of the GPS modules we reviewed, and for good reason. This four-CD set includes detailed USA maps for both your handheld and your desktop PC. Plot your journey on your Windows PC computer, then download the appropriate map data to your PDA. You can save memory by only including street-level maps at your departure and destination points, or choose a "ribbon" map that



6 You can use a serial adapter to connect many stand-alone GPS receivers to your handheld.

7 Transplant offers a CompactFlash GPS now, and will soon ship this Bluetooth model.





includes towns along your route. You can include points of interest along your route, such as restaurants, hotels, parking garages, and even software stores. With maps located in RAM, this is a superb application, but we found screen redraws to be excruciatingly slow when maps are stored on an MMC card. We'd suggest copying individual maps to main memory while using them, and moving them back to the storage card when you leave the area.

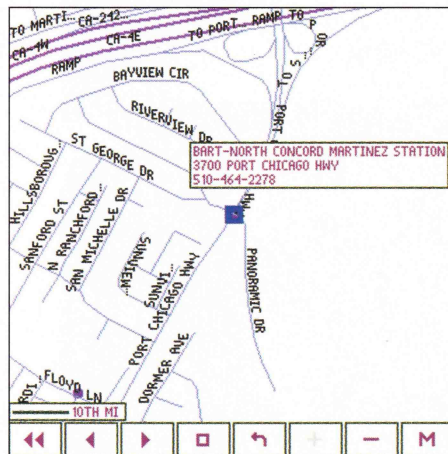
Streetfinder's routing is interactive—as you drive, the program alerts you to upcoming turns with a beep. Unfortunately, the Windows application uses the Internet to build your travel directions, so forget creating or updating routes using a laptop while driving or camping. You'll have to wait until you can find a net connection.

If you already own a GPS module, Handmark now offers StreetFinder (\$29.99) as a stand-alone product for Palm OS handhelds. This is a single-CD product, but it still offers street-level navigation and full GPS support.

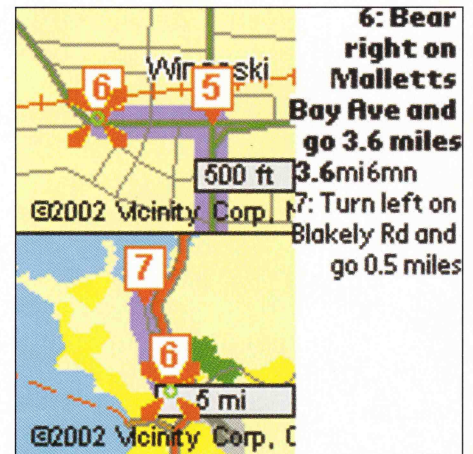
GPS Pilot's new TripPilot (\$49.95) is a superb application that offers turn-by-turn directions, with GPS tracking of your current location, for destinations around the world. It's extremely easy to use, with a feature that lets you copy start/destination addresses from your address book. Unfortunately, you can't install maps using HotSync—a wireless Internet connection or handheld modem is a must. If you're properly equipped, though, this well-designed navigation program may be the only mapping app you'll ever need for travels at home and abroad. With its wireless support, you can grab new maps even if your travel plans change when you're thousands of miles from your desktop computer.

#### Companies featured

Delorme	<a href="http://www.delorme.com">www.delorme.com</a>
GPSPilot.com	<a href="http://www.trippilot.com">www.trippilot.com</a>
Handmark	<a href="http://www.handmark.com">www.handmark.com</a>
Mapopolis	<a href="http://www.mapopolis.com">www.mapopolis.com</a>
Marcosoft	<a href="http://www.marcosoft.com">www.marcosoft.com</a>
Navman	<a href="http://www.navman.com">www.navman.com</a>
Nexian	<a href="http://www.nexian.com">www.nexian.com</a>
Thales Navigation	<a href="http://www.magellangps.com">www.magellangps.com</a>
TomTom	<a href="http://www.tomtom.com">www.tomtom.com</a>
Transplant Computing	<a href="http://www.transplantcomputing.com">www.transplantcomputing.com</a>



Mapopolis provides plenty for its yearly subscription fee, including hi-res map support and turn-by-turn directions right from your handheld.



TripPilot uses a wireless connection to provide turn-by-turn directions virtually anywhere in the world.

Delorme's XMap Handheld Street Atlas USA Edition (\$39.95) boasts street-level maps for the entire US and four million points of interest such as parks, restaurants, and hotels. It can also work in conjunction with Delorme's Top USA 4.0 to transfer topographic maps to your handheld.

Marcosoft's Quo Vadis (\$49.95) has been updated to version 3.0, and now supports real-time map rotation when used with a GPS, multiple interconnecting maps, fast screen refreshes, and the ability to search for streets, landmarks, and intersections. It doesn't support routing, and it's better suited for in-town navigation than lengthy trips due to the way its map files are handled.

Mapopolis is a subscription-based service that costs \$14.95 to \$44.95 per year, depending on the level of detail you need in your maps. The \$14.95-level maps include basic streets and landmarks. The \$44.95 Platinum-level maps add address information, city boundaries, landmarks, and GPS data. Best of all, with Platinum maps you can generate route directions directly on your handheld. The map data is very up-to-date, and this finely crafted application supports hi-res display on the Clie and Handera 330.

Finally, if you're heading to Europe, check out TomTom CityMaps (\$14.95/city or €59.95 for a CD containing 100,000 cities), which offers street-level maps of major cities, and TomTom RoutePlanner Europe (€59.95), an excellent highway routing application. Both are fully GPS-aware.

And TomTom CityMaps may even help you find your way out of Munich.

—Denny Atkin





HotSync problems? Broken screen? Wiped memory? We've got solutions to the most common (and vexing) handheld problems—and some of the worst horror stories you've ever heard.

By Rick Broida

# The Ultimate Troubleshooting Guide



The date on Frank Liebherr's Palm IIIx is frequently out of sync with the actual date.

Martha Pennington's four-month-old Visor Edge will no longer recharge.

Chris Olson's Palm IIIC took a trip through the washing machine—and the dryer.

Gene Degenhardt turned on his two-year-old Palm IIIx one day, only to discover it had been wiped clean.

Gregg Logan upgraded to a Palm IIIC that had a defective digitizer. Palm sent a replacement with the exact same problem. Then a second replacement with the exact same problem. He bought a Visor Prism.

**W**elcome to handheld computing (not the magazine—the experience). Much as we adore our devices, sometimes they're like children: fragile, unpredictable, and prone to downright wacky behavior. We chalk this up to the nature of the computing beast—when you mix hardware, software, and human beings, Murphy's Law kicks in big-time. Sometimes problems are caused by poor quality control at the manufacturer's end, sometimes they're the result of flaky software, sometimes it's human error, and sometimes it's...who knows?

We're here to expose some of the most common—and bizarre—handheld computer problems, and help you solve them. In researching this story, we heard from users with tribulations large and small, from HotSync cradles that suddenly stopped working to the aforementioned laundered Palm. (For the record, Olson reports that after disassembling the IIIC, soaking the screen in distilled water, rinsing the circuit boards and scrubbing everything clean with a toothbrush, it's now "working like a champ." True story.)

Never let it be said that we don't go the extra mile for our readers. We vented our frustrations to Palm Technical Solutions Manager Yuji Honma, who not only agreed to be on call for the story, but also composed for us an entire document devoted to troubleshooting—chunks of which you'll find in the pages to come. So, in reality, Mr. Honma went the extra mile—all we did was pick up the phone.

## WHEN GRAVITY ATTACKS

**The Problem:** You dropped, ran over, sat on, stopped a bullet with, or otherwise mishandled your handheld, resulting in a cracked case or shattered screen. "Screen breakage is probably the most common physical abuse issue we see at the call centers," Honma reports. If you're

lucky, the damage is merely aesthetic. But if the forces of weight or gravity have left you with an inoperable handheld, it's time to make some tough decisions.

**The Solution:** First, the bad news: your warranty doesn't cover stuff like this. The "good" news is that for about \$100 to \$125, Palm and Handspring will replace your mangled PDA—even if your warranty has expired. (Sony charges \$150 for the privilege.) The question is, does this investment make sense? It's an outright bargain if your handheld cost \$300-500, but obviously not the smart move for an m100 that cost \$99 to begin with. Alternately, if you have a model that's a couple years old, this may be the time to consider moving to something newer. (Don't tell us you weren't thinking about it anyway).

Another option to consider is a refurbished replacement—a unit that's been returned, reconditioned, and certified to be in good working order. You can find loads of these models on eBay, but we recommend starting at ReturnBuy Direct ([store.returnbuy.com](http://store.returnbuy.com)). We found a Palm IIIC selling for \$39.99, a Palm V for \$59.99, and a Palm VIIx for \$69.99. Those are great deals even if your handheld isn't broken.

Those handy with a screwdriver and soldering iron may want to consider a do-it-yourself repair. A busted screen, for instance, may require only a new digitizer—the glass top that recognizes stylus input. If the glass is broken but the images underneath look okay, check out the replacement digitizers at GetHighTech Inc. ▶



If you damage an older handheld like a Palm VII, it makes more sense to get a refurbished replacement than to repair it; we found a refurb VIIx for \$69.99.

These videos are property of GetHighTech, Inc. They are not to be distributed, resold, retransmitted, copied or altered. They are made for educational purposes only and are not to be used for any other purpose. By downloading these videos, you agree to the terms and conditions of our website. Please do not use these videos for any other purpose.

You will need to use either QuickTime or Windows Media Player to view these AVI movies. You will also need to unzip the file before playing. (ZIP ZIP for PC, or Mac)

Palm III, IIIx, IIIc & IIIe Screen Removal and Take Apart

Palm III, IIIx, IIIc & IIIe Digitizer (GlassTop) Repair

This video will show you how to remove the Palm III screen, keypad and case. [Click Here](#) to Download the 2.5mb ZIP File

This video will show you how to repair a broken Digitizer (GlassTop). [Click Here](#) to Download the 3.1mb ZIP File

If you're feeling really adventurous and want to fix your broken handheld yourself, GetHighTech.com offers free downloadable repair videos.

## STOP STATIC ELECTRICITY IN ITS TRACKS

**The verdict is in:** static electricity is the biggest threat to handhelds since gravity. It usually rears its ugly head when you place your PDA in its cradle, which is why it's vital that you ground yourself first. According to Joel Goldberg, author of *Electronics Fundamentals*, touching the metal case of your PC is one way—but if you really want to be safe, go for the metal screw holding the cover on an AC wall outlet. If you work in a particularly static-sensitive environment (anyplace that's cold and/or dry), consider wearing a grounding wrist strap, which you can buy at your local Radio Shack.



## THE HORROR, THE HORROR

Call it "Unsolved Mysteries, Handheld Edition." Attorney Jack Nolish purchased his first handheld PC—a Palm III—in the summer of 1998. For about two years he used it without incident, frequently plugging it into a GoType keyboard to take meeting notes. Then, one day, *poof*—the handheld would no longer recognize the keyboard. He tried resetting it. He tried installing a newer driver. He tried calling his nephew (this article's author). Nothing worked.

Static electricity was the suspected culprit, but if it had zapped the Palm's serial port, the keyboard wouldn't be the only casualty: the Palm wouldn't be able to HotSync, either. Strangely, it still could. The keyboard wasn't the problem—a co-worker's Palm functioned just fine with it.

Because the Palm was out of warranty and Nolish figured it was time for an upgrade anyway, he sprang for a new Palm IIIx, netting a better screen

and more memory in the process.

During the following 11 months, everything worked normally—and then the chips really hit the fan.

That day, Nolish fished his Palm out of his briefcase and found that it wouldn't turn on. Though it had worked fine during the previous night's HotSync, now it registered no pulse. A fresh pair of batteries failed to resuscitate the unit, and a call to Palm's tech-support department confirmed it was dead. Fortunately, this time the warranty hadn't quite expired, so a replacement was quickly dispatched.

The replacement wouldn't HotSync on Nolish's home PC. It wouldn't HotSync on his office PC, either. Palm's techs were stymied, so they sent another unit. To Nolish's relief, this one seemed to synchronize just fine. The next morning the batteries were dead. He put in a new pair, then watched as the Palm consumed them in a matter of hours. Palm shipped yet another IIIx, which Nolish still has, but doesn't use. This one, he reports,

"randomly locks up or dies."

For the record, Nolish runs only a smattering of third-party software, including a single innocuous Hack (MiddleCaps, which we've used for years). While static electricity can be held accountable for some of the initial problems, it doesn't explain any of the mysteries of the three replacement Palms. At first dismayed, but then genuinely angered over these productivity-sapping glitches, Nolish stuck the IIIx in a box and bought a red Visor Edge. When he synchronized it, everything seemed to work fine—but then he discovered that the recurring events he'd added to the calendar were gone, and the HotSync log was filled with gibberish about 1970 (a documented Palm Desktop glitch). At press time, Nolish was still working to resolve this latest crisis. In the meantime, he wonders, "When throwing a Visor out the window, is it best to use a baseball-style throw, or the wrist-flick Frisbee approach?"



If you're using a Palm IIIc, IIIx, or Vx and you get a flashing "debug" dot after a reset, you may have a bad memory chip; Palm has a patch to fix the problem.

([www.gethightech.com](http://www.gethightech.com)). They cost \$45 for the Palm IIIe/IIIx/IIIx and Palm VII series, and \$55 for the Palm IIIc. It's pretty easy to replace the glass, and the GetHighTech even has online videos that walk you through the steps.

Palm and Handspring now offer protection plans (i.e., extended warranties) that include screen replacements. It may be worth spending \$40-50 now to avoid spending \$100-125 later. See the companies' sites for details.

### THE FLASHING SQUARE OF DOOM

**The Problem:** Usually, when the Palm OS crashes, you press the reset button and get on with your life. However, if Mercury is aligned with Venus, or some other unfortunate cosmic force is at work, you get the Palm logo and little flashing square in the corner of the screen—and nothing else.

**The Solution:** If you have a Palm IIIc, IIIx, or Vx, you may have a defective memory chip. Fortunately, there's a software patch that can correct the problem. Visit Palm's DRAM support page ([dram.palm.com/dram\\_faq.html](http://dram.palm.com/dram_faq.html)) immediately to see if your model is at risk. If you don't, and the "little flashing square" bug occurs, your handheld's contents could be corrupted.



Add a StuffBak label to your handheld and you might very well see it again after leaving it behind.

### LOST AND FOUND

**The Problem:** If you've already lost your handheld, you're reading this too late. Here's hoping you had some good security software installed.

**The Solution:** For as little as \$1.95, you can buy a specially coded StuffBak ([www.stuffbak.com](http://www.stuffbak.com)) label to paste on the back of your handheld. The finder need only call a toll-free number or visit the StuffBak Web site to arrange for its return, which requires little effort and includes a reward. You pay a \$14.95 transaction fee, plus shipping charges and any cash reward you care to offer. (StuffBak's own reward is a pack of its labels, valued at \$20.) If you believe people are generally honest, this is an inexpensive and potentially painless way to help a lost handheld find its way home.

### UNRESPONSIVE SCREEN

**The Problem:** You tap the screen and nothing happens, or the wrong thing happens (as though you tapped somewhere else). It's like your handheld is possessed.





If you're having problems calibrating your handheld's screen, try DigiFix.

if the problem recurs frequently, or just plain won't go away, that's pretty serious.

**The Solution:** Sometimes it's not even possible to get to Prefs, at which point your only recourse is a hard reset. That will get you to the calibration screen—after which you can HotSync to restore everything. But that's a pretty extreme step. We prefer the freeware utility DigiFix ([www.coopcomp.com](http://www.coopcomp.com)), which saves and restores your digitizer calibration whenever you reset, turn on, or HotSync your handheld. It also enables you to reach the calibration screen via the hard buttons, so you needn't worry about fighting your way to Prefs.

## CAN'T HOTSYNC

**The Problem:** It worked fine yesterday! But today, for some inexplicable reason, your handheld just won't HotSync.

**The Solution:** We know, we know, this drives us up the wall, too. We wish we could blame Windows, because it's just the kind of nonsense we've come to expect, but this usually is usually related to a Palm software, hardware, or cradle problem.

Best bet? Start with a reset. Use the end of a paper clip (or unscrew the barrel of your metal stylus to find a hidden tip) to press the reset button on the back of your handheld. In many cases, this will solve the problem outright, and you can get back to playing Bejeweled.

It's not always that simple, though, so let's hand the reigns to Honma:

"This is far and away the top reason for calls into our call centers. The problem is usually something pretty simple that the customer may have overlooked:

- "Is the handheld fully charged? Many of our first-time callers forget to charge their handheld when they purchase it.
- "Is the power adapter plugged into the cradle and into an active power outlet? We had one customer who had his cradle and power supply hooked up to the same power outlet which controlled the light in a room. He would turn off the light switch when he left the room,

In reality, you've got a misaligned digitizer: that is, the screen is no longer calibrated properly. Assuming you're able to navigate to Prefs, just choose Digitizer from the menu and recalibrate the screen. However,

which also killed power to our cradle causing the device not to charge.

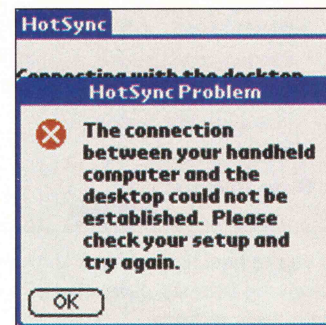
- "Is the HotSync Manager running? Is the appropriate connection method (USB, Serial, etc...) checked? You'd be surprised at the number of customers who call in that don't have the HotSync Manager running or the appropriate connection method checked.
- "Is your HotSync Cradle plugged into your serial or USB port? Strange, but true. Many customers forget to plug their cradle into the back of the computer.
- "Does your computer support USB? We get this frequently from customers with computers with physical USB ports but who are running Windows 95 or NT 4.0, which don't have support for USB built into the operating system. They assume that because they have the physical port, USB is supported.
- "Does your computer have a serial port? We are getting this one more frequently with newer computers, particularly laptops, not having serial ports but only USB ports on them. This affects our older products that came with serial HotSync cables/cradles. These users will need to get a serial-to-USB adapter to allow them to use the serial cradle with their USB port.
- "Are you using a USB hub? We've come across some cases where the USB hub is not emitting enough power through the port causing the cradle not to be recognized. Plugging directly into the USB port on the computer helps us to eliminate this variable and prove to the customer that the USB hub is the culprit."

For information on the m500/m505 HotSync issue, keep reading. And let's add one of our own that we've encountered when helping readers with their sync troubles:

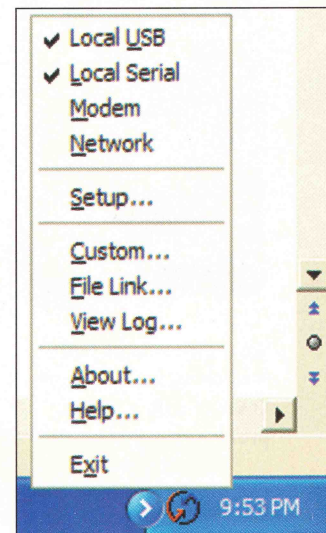
- Are you using a serial cradle and a recent version of the Palm Desktop? If so, right-click on the HotSync icon in the lower right corner of your Windows screen and make sure that "Local Serial" is checked.

## CAN'T BEAM

**The Problem:** Another PDA user is trying to beam you something, but your handheld just won't receive it. Or the beaming process gets interrupted in the middle. ▶

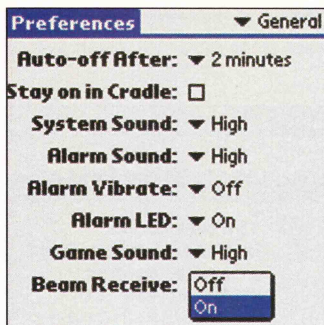


HotSync errors can be caused by a variety of factors.

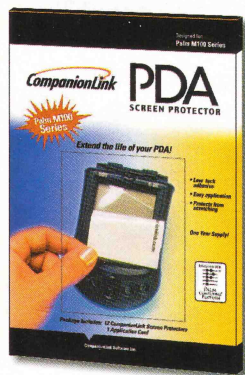


If you're using a serial cradle and a recent version of the Palm Desktop, be sure that "Local Serial" is checked on HotSync Manager.

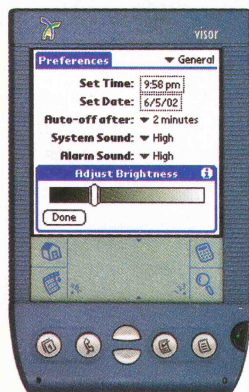




If you're having problems receiving beamed data, check your Prefs settings



Having problems with scratching your screen? Cover it with a screen protector.



Turning the brightness down on your Visor Prism can double the useful battery life.

**The Solution:** Start by visiting the Prefs screen and making sure the Beam Receive box is checked. You say you didn't uncheck it? Don't argue with us—just go look. Sometimes, for reasons only Fox Mulder can explain, Beam Receive turns off by itself.

If that didn't do it, check your environment. If you're outdoors or under bright or fluorescent lights, it's easy for the infrared beam to scatter. Try moving indoors or to a darker spot. And don't forget the obvious—make sure your screen cover isn't blocking the IR transmitter (the little black-plastic window at the top, or on the side, of your handheld).

Also, get some distance. Many people make the mistake of jamming their handhelds together, but a successful beam requires at least six inches of space between transmitters. Heck, you can stand five feet apart if you want.

None of this solved the problem? Try a soft reset.

If you're a Visor user, you may be facing a wholly unique set of beaming issues. We've heard reports of some seriously flaky IR ports on Visors, particularly the Prism. A soft reset may help, but you should also try varying the angle of the handheld while beaming. Once the beam commences, hold the Visor steady at that angle.

## SCRATCHED SCREEN

**The Problem:** You just bought a new handheld and you want to keep the screen pristine, or your screen is already scratched and you want to buff it out.

**The Solution:** A little car wax might help with existing scratches—rub it on, let it sit five minutes, then wipe it off using a soft, lint-free cloth. Better yet, cover your screen with a protective sheet that

will prevent scratches altogether (and make existing ones feel less prominent under your stylus). There's a great deal to be had on CompanionLink screen protectors, which are available for most handheld models, at [www.freescrreenprotectors.com](http://www.freescrreenprotectors.com). A box of 12 will set you back just five bucks. We like these sheets better than Fellowes' WriteRights, which reduce screen contrast.

The CompanionLink protectors are completely clear and have a good stylus feel.

## TIME HAS STOPPED

**The Problem:** The date is not advancing on your Palm.

**The Solution:** This is a known issue that affects mostly Palm IIIx and Palm V units. According to Palm, it's caused by low batteries, meaning the problem should go away if you replace or recharge them. At the same time, try a soft reset.

If this doesn't do the trick, a third-party software conflict or a hardware defect may be to blame. The only effective way to find out for sure is to do a hard reset, which will wipe all third-party software and restore the Palm to its factory settings, then set the clock to 11:59 p.m. and note the date. Wait a minute, then turn the unit on and see if the date has advanced. If it has, it's probably a software glitch. If not, a repair may be in order.

It's no mean feat to pin down a software conflict. It could be caused by a Hack or an application that has some link to the calendar. If you're able to figure out which program is the culprit, contact the developer to see if there's a fix (or at least some acknowledgement of the problem).

## BATTERY DRAIN

**The Problem:** Your batteries don't seem to last as long as they should.

**The Solution:** Time to cure that Bejeweled addiction!

"[Battery life] comes up quite a bit from those customers who claim that their batteries are draining at an alarming rate," says Honma. "Once we've asked a few questions, we usually find that the user is constantly using their backlight (the #1 way to consume battery power) or has been playing games non-stop. Users don't realize that continuous use of the handheld will drain the battery at a much faster rate than normal use. We assume that most people will use their handhelds in much shorter spurts, which helps to prolong the battery life."

On models with adjustable lighting intensity, such as the Visor Prism, turning the backlight down to the lowest comfortable level can practically double your useful battery life.

## M500/505 CRADLE CRISIS

**The Problem:** Your Palm m500 or m505 suddenly stopped HotSyncing.

**The Solution:** The culprit may be electrostatic discharge (ESD), which has fried more handhelds over the years than Palm would like to admit. Palm has admitted







# Case Study

## The Top 10+ Ways to Protect Your Handheld

by Dawn Jepsen

*You've probably given some thought to how to best protect your PDA from damage—that is, unless you're thinking a cracked screen would be a great excuse to upgrade. Assuming that you're not plotting your handheld's demise, we recently asked a dozen handheld case manufacturers to send us an assortment of protection devices for review. After eliminating cases with less desirable designs—such as Velcro holders for your PDA—and canceling out several cases that were nearly identical to another, we've come up with reviews on 10 excellent products to suit the avid outdoorsman, office executive, or those that are somewhere in between. Many of the cases we reviewed are available in several color and accessory variations; be sure to check out the individual websites for a full list of options.*

### ARMOR BY OTTER BOX

**\$49.95, Otter, [www.otterbox.com](http://www.otterbox.com)**

Available for: iPAQ 3100/3600/3700/3800 series, Palm m500 and V series, Palm III/IIIc series, Casio E-125, Visor Edge and Visor Deluxe

Model tested: Palm V

If you're thinking of a career as a storm chaser, and still want to stay wired, you'll

need to give serious consideration to Armor by Otter Box. This is not the case for casual weekend use. Instead, Otter Box has targeted it to professionals who use PDAs in "less than ideal conditions" (think "war zone"). Made from ABS plastic and fiberglass-reinforced polycarbonate, Armor is essentially a heavily hinged hard plastic box. We tested Armor's claims with our Palm V and found it to be as advertised: waterproof, crushproof, and airtight. It also floated with the Palm V inside. The front of the case has a write-through screen that allows you to access your PDA without removing it or exposing it to the elements. While the stylus holder on the front of the case seems like a good idea, we're not sure if a stylus would stay put in the severe conditions in which this case is likely to be used. The tested model came with an adjustable hand-strap attached to the back of the case; there's also an optional belt clip available.

### CHAMELEON HARDCASE

**\$29.95, Proporta, [www.proporta.com](http://www.proporta.com)**

Available for Palm m50x and m100

Well known among Palm users as the ultimate in protection for the Palm, the Chameleon certainly proved its worth by

leaving a Palm m100 unscathed after being dropped from an ultralight aircraft. Constructed from virtually unbreakable ABS plastic, one of this case's best features is the sliding hinge catch that creates an ultra tight seal, preventing accidental opening of the case when dropped. The Palm is well secured (even when shaken vigorously while the case was open) with a faux stylus that's attached to the case's hinge. A soft fabric lining adds support to the interior, and also serves to protect the screen from damage. Optional features include a belt clip and a variety of interchangeable colored face plates.

### ELITE 700 FLIP CASE

**\$39.95, Case Techworks,**

**[www.casetechworks.com](http://www.casetechworks.com)**

Available for most PDAs

Model Reviewed: Sony Clie N710C/N760C

Definitely one of the best cases we reviewed, Case Techworks truly thought of everything when constructing the leather flip case for the Clie. The fit on this case starts out a bit snug, but the leather soon stretches to fit the PDA like a glove. The basic design features a well-padded flip cover that snaps closed on the back of the case. There are cutouts on the side that



Armor by Otter Box



Chameleon Hardcase



Elite 700 flip case



allow access to the headphone jack and jog dial. The most impressive feature is the "kick-stand" component on the back of the case that allows easy hot syncing without necessitating removal of your PDA from its cozy storage spot. The fold-out back also works like a stand if you want to sit the PDA upright on your desk. The tight design of this case doesn't allow for a lot of extra storage, but there are two business card slots squeezed into the inside of the case cover, and an optional belt clip is available.

## EXPEDITION

**\$44.95, Grinder Gear,**  
**www.grindergear.com**  
 Fits all handhelds

Resembling a miniature backpack and constructed from Cordura nylon, the Expedition just looks like it was made for serious outdoor use. Indeed, Grinder Gear is owned by an avid outdoorsman, and the heavy construction of this case reflects an insider's knowledge of how it will be used and abused in the field. Lined with black fleece, the inside features six straps to hold your handheld securely in place. While the straps can offer a bit too much coverage of the screen and function keys, this secure design is certainly preferred over the Velcro alternative. To better protect the glass on your handheld, consider turning the handheld with the screen facing toward your body while carrying the case. Three zippered pockets are large enough to hold your keys, wallet, sunglasses, or GPS, and the mesh outer pocket is the perfect size for a small cell phone.

## HANDSPRING TREO CARRYING CASE

**\$24.95, Incipio, www.incipiodirect.com**  
**www.mysmartphone.com**  
 Cases available for most popular handhelds  
 Model Reviewed: Handspring Treo

Incipio's case was the only one we reviewed for the Handspring Treo, and it exhibited exceptional quality and design. Made from

## CLASH OF THE TITAN(IUM)S

Several makers of the cases we reviewed in this feature also make excellent titanium and/or aluminum cases. All of the metal cases we looked at offered plenty of functionality without adding bulk to the PDAs they carried. Sturdy, yet light, a metal case may be the way to go if you're looking for plenty of protection and have an appreciation for the sophistication of minimalist styling.

Rhinoskin offers two styles for many popular handhelds (a notable exception being the Sony Clie), both of which come in either aluminum or ultra-classy titanium. The standard molded style has a hinged opening and a clamshell closure. Our favorite model however, was Rhinoskin's Slider. This innovative design has rails that allow the cover to slide under the case so the handheld can be used easily without removing it. The Slider is one of the few cases we reviewed that works just as well for left-handed users.



**Rhinoskin's Slider case**



**Proporta aluminum case for the Clie T-series**

Providing the only metal case for the Sony PEG-T series users, Proporta offers a stylish little aluminum number that fits your Clie in all the right places without adding any extra bulk. Cut-outs in the side, top, and bottom offer easy access to the jog dial, headphone jack, stylus, memory stick and HotSync port.

While currently only available for the Palm V, iBiz (www.ibizcorp.com) makes a sturdy and stylish aluminum case that features a secure attachment system through use of a faux stylus. With neoprene lining and clam shell closure, this case provides a lot of protection while being the lightest metal case we reviewed. iBiz is promising similar cases for other popular handhelds soon.



**Expedition**

tough ballistic nylon, the Handspring Treo case features lightweight padding that provides protection without adding additional bulk. The case fits either the Treo 90 or 180 snugly (the 270 wasn't available for testing at press time), and has a cutout



**Incipio Handspring Treo Carrying Case**

at the top of the case for the 180's antenna. The side of the case has a mesh pocket that's just the right size for holding an ear bud. A terrific feature is the clear window at the top of the case for the LED. A quick-release belt

*Continued on page 34*



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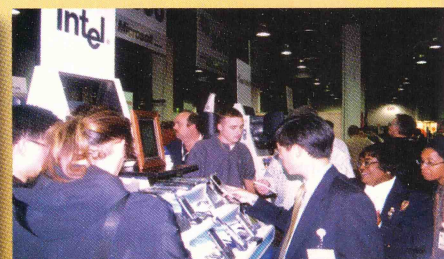
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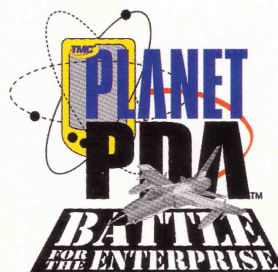
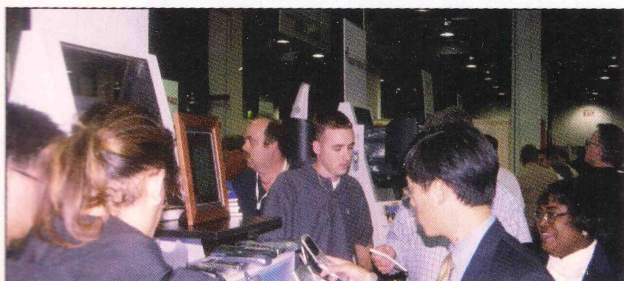


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# Case Study



**Rhinoskin Leather Flip Case**



**OfficeOnTheGoGo PDAPak**



**The Pod from RoadWired**

*Continued from page 31* attachment provides sturdy portability without the stiffness of the hard plastic belt clips.

## LEATHER FLIP CASE

**\$34.95, Rhinoskin, [www.rhinoskin.com](http://www.rhinoskin.com)**

Available for all PDAs

Model Reviewed: Visor Deluxe, Palm III

A stylish and well-executed holder, Rhinoskin's leather flip case offers a more tailored alternative to the predictable black nylon case. Once the PDA is in the case, the front cover folds all the way over its top and closes with a snap on the back of the unit. This case offers a secure fit, and ample protection for everyday use. The design is simple and tasteful: a combination of leather and suede in either black or dark brown. There's an optional belt clip attachment, but there are no extra storage pockets for even a business card. If you're considering one of Rhinoskin's many case options, be sure to check out the Factory Outlet section on their website for possible savings on the model you have in mind.

## PDAPAK

**\$29.99, OfficeOnTheGoGo, [www.officeonthegogo.com](http://www.officeonthegogo.com)**

Fits all handhelds

Perfect for the business traveler, the PDAPak is yet another item that can aid in the transition away from traveling with a cumbersome laptop. At a convenient 7x8 inches, the PDAPak's six pockets easily held a Visor, Stowaway keyboard, and cell

phone, as well as several Springboards, batteries, and a travel charger. This case also features a two-way compartment that allows easy access to your handheld without removing it. The PDAPak has a carry handle and also comes with an adjustable shoulder strap. While the tested 7x8 inch version could fit easily into a briefcase, OfficeOnTheGoGo offers two larger versions that may just offer enough storage to replace your briefcase altogether.

## THE POD

**\$49.95, RoadWired, [www.roadwired.com](http://www.roadwired.com)**

Fits all handhelds

Reminiscent of a small camera bag, RoadWired's "The Pod" held every gadget we could think to put in it, and is definitely for the serious geek on the go. Made from water repellent neoprene, this sturdy case features three "winged" outer

pockets which allow access to a specific item without necessitating removal of, or risking the loss of, other stored devices. The padded central pocket has room for a decent sized camera, and has an adjustable "hammock" that conforms to and pads the central item. You can carry The Pod using its removable shoulder strap, or wear it as a waist pack by using your belt. Overall, this is a quality storage case that will well serve both the gadget-laden traveler and the wired outdoor enthusiast.

## SLIPPER

**\$36.95, E & B Company, [www.ebcases.com](http://www.ebcases.com)**

Available for all PDAs

Model Reviewed: Sony Clie N710C/N760C

Another excellent option for the more formal workplace is the form-fitting leather Slipper from E & B Company. The Slipper offered a *Continued on page 36*



**E & B Company Slipper**



# Ultimate Case and Accessory Guide

## DIRECTORY

**RoadWired Cases** / [www.roadwired.com](http://www.roadwired.com) / 877-HELLO RW  
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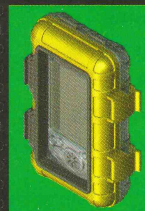
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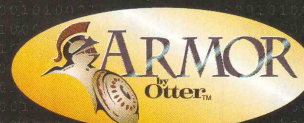
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# Case Study



**Nite Ize Stand Up PDA Holster**

*Continued from page 34* perfect fit for the Clie, and has convenient cut-outs on the left side of the case to allow access to the jog dial and headphone jack. The bottom of the case is zippered to provide easy HotSyncing without the need to remove the device from the case. The metal belt clip is much easier to use than many of the hard plastic clips on other cases. The design of the case is nicely tailored, and is certainly one of the least cumbersome cases we reviewed. The flip cover features two slots appropriate for an ID or a few business cards. Beware however, because the sleek closure mechanism is magnetic, any credit cards stored in the cover or elsewhere in the case will have their magnetic strips scrambled.

## **STAND UP PDA HOLSTER**

\$29.95, Nite Ize, [www.niteize.com](http://www.niteize.com)  
Fits all PDAs

The unique and functional design of the Nite Ize Stand-Up PDA Holster went beyond our expectations. Made from black and gray ballistic nylon, this case's most unusual and versatile feature is the bendable internal metal frame attached to the back of the unit. After unsnapping it from the back of the case, the fold out frame supports the PDA in an upright position, acting as a stand for tabletop use. Simply remove the PDA from the holster and use the Nylon straps to attach it to the front of the case. The metal frame also works as a belt hook attachment, or

the shape of the frame can be bent to act as a hangar for mounting the holster. Solid construction creates quite a lot of protection without a lot of bulky padding. There are two internal pockets made from webbing; a small, outer, zippered pocket; and storage on the side of the case for

batteries or a pen. Openings at the bottom of the case allow access to a hot sync cable. The company also offers a phone holster in three different sizes that has much of the same functionality as the PDA holder; the largest size accommodates a Kyocera 6035 well.■

## **A CASE OF THE UNUSUAL**

If you're in need of something a little different than a standard case, we're willing to bet that some version of what you're looking for is out there. We received some unconventional products for review that don't easily fit into the categories above, but may suit your needs perfectly.

If it's extra protection you seek, or you're carrying unusually shaped electronics, you may want to consider R.A.P.S. (RoadWired Advanced Protection System) by RoadWired. R.A.P.S. looks like a simple felt square on one side, but on the inside it's lined with a specially designed polymer to help prevent moisture and corrosion from eating away at whatever you decide to wrap inside it. Folded like an envelope, R.A.P.S. offers padded protection to loose items when thrown into your luggage.

Seal Line ([www.seallinedrybags.com](http://www.seallinedrybags.com)) has designed the Electronic Case, a heavy duty plastic liner that promises to keep your PDA or other small electronics safe one meter underwater for up to thirty minutes. Essentially a heavy duty plastic liner with a serious water tight seal, the Electric Case features a foam insert for protection and offers a handle and sturdy attachment hardware.

If you're simply looking for a cell phone-styleholder for your Treo, check out the Treo Holster from Promax ([www.promaxwireless.com](http://www.promaxwireless.com)). Clipping securely to your belt, this hard plastic holder provides protection and quick access to your Treo without adding any unnecessary bulk.

Are you constantly misplacing your Visor's cover? FlipCover ([www.flipcover.com](http://www.flipcover.com)) is a hard plastic screen protector with a hinge that snaps into your open Springboard slot, allowing you to flip the cover behind your Visor. Adapters are available to attach FlipCovers to standard Springboards as well.

Finally, if you just "gotta be me," check out the cases from Smartercase, ([www.smartercase.com](http://www.smartercase.com)). Extremely sturdy and designed to fit almost any handheld, the Smartercase comes in a wide variety of fabrics—from businesslike twill to statement-making leopard and lizard—wrapped around a steel clam shell case. The case uses Velcro to hold your handheld in place—not a method we



**"Gotta be me" cases from Smartercase**

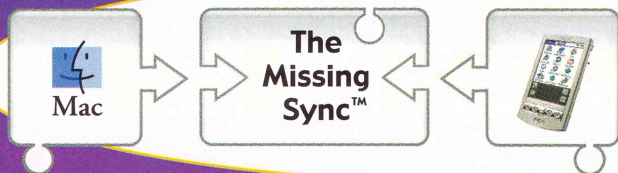


**Treo Holster from Promax**

approve of—but it's solidly constructed from fabric-covered steel and provides excellent (and quirkily stylish) protection to your handheld.



## Mac OS Support for Sony CLIE Handhelds



Data Cables for Handheld Devices

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[www.markspace.com](http://www.markspace.com)

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## XcelleNet Unveils Email and Database

**X**celleNet has released Afaria Sync Manager, the newest member of its family of mobile infrastructure solutions. Afaria Sync Manager enables organizations to securely extend access to Microsoft Exchange, Lotus Domino, and other kinds of enterprise application data, directly to an organization's fleet of Palm Powered PDAs and Pocket PC devices.

Originally announced late last year, XcelleNet says that early testing with a number of customers has allowed the company to add key enhancements to Afaria Sync Manager. The software now supports Pocket PC 2002 devices as well as Palm OS devices, provides faster groupware synchronization, and is easier to deploy and configure. Some additional functionality also comes as a result of a joint development effort with Ehand, a Swedish software company that XcelleNet has subsequently acquired.

In addition to enabling access to e-mail, schedules, and other PIM data, Afaria Sync Manager may allow companies to extend other mission critical applications such as CRM, ERP, and Contact Management to Palm OS users. In addition to Afaria Sync Manager's ability to synchronize data between PDAs and email/PIM solutions, it also delivers Palm-powered synchronization with enterprise databases like Oracle, Sybase, and SQL Server via an optional add-on component.

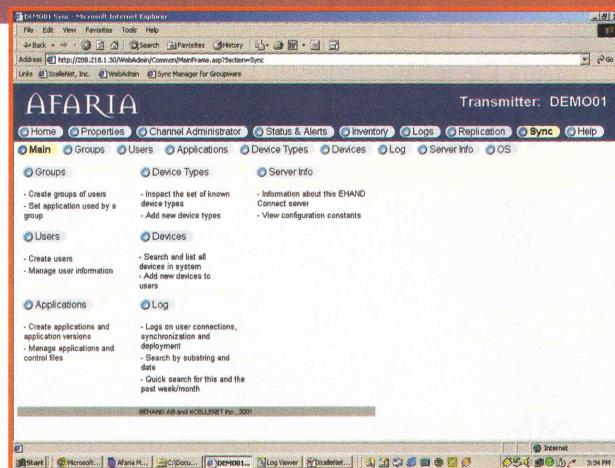
Afaria Sync Manager boasts intelligent installation and configuration that uses wizards to help administrators integrate handheld devices with Exchange and Domino groupware servers. XcelleNet also promises that Afaria Sync Manager minimizes the amount of data exchanged

between PDAs and the groupware server—a critical feature when communicating over narrowband wireless connections such as CDPD, CDMA, and GSM. In addition to those wireless networks, Afaria supports wired modem and cradle-based HotSyncs.

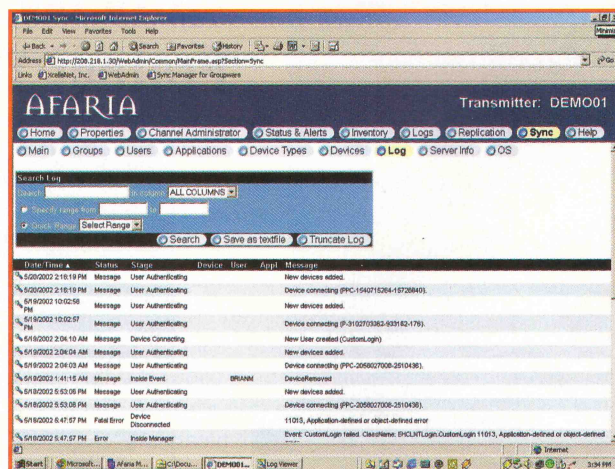
Joe Owen, CTO of XcelleNet, sees Afaria as part of a comprehensive XcelleNet package for the enterprise. "By implementing Afaria Sync Manager alongside XcelleNet's traditional management capabilities, such as software distribution and asset tracking, businesses can control all aspects of mobile business—from deployment of business critical applications to the synchronization of handhelds—with a single solution."

Afaria Sync Manager is currently available. The Groupware Sync component costs \$49 per user, while the Sync for Databases add-on costs \$69. Groupware is available for both Palm OS and Pocket PC; Sync for Databases is only available for Palm-powered devices. The company also offers the XcelleNet Starter Kit, a free 10-user license that includes a half-dozen of XcelleNet's mobile

management tools including Afaria's Groupware Sync. The starter kit also includes PDA software administration tools, asset inventory software, a configuration manager that lets administrators enforce policies and profiles, and wireless-access session management tools. For more information, you can visit [www.XcelleNet.com](http://www.XcelleNet.com) or call (800) 322-3366.



The Afaria Sync Server's main menu makes it easy for administrators to manage a fleet of Palm OS devices.





## Trust Digital Encrypts Memory Cards

It was hard enough on the typical IT manager's nerves when pocket-sized computers began to proliferate in the office, considering their limited security and easy mobility. But with the rapid growth of removable memory cards among today's crop of Palm-powered PDAs, administrators have a whole new security concern—SD, CompactFlash, Springboard, and Memory Stick memory cards that can be traded (and lost or stolen) as easily as baseball cards.

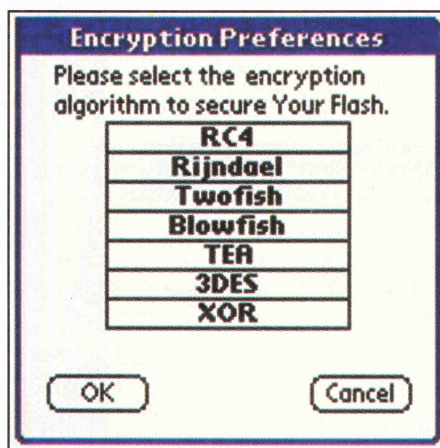
Trust Digital has its own solution to this problem: SecureCard. SecureCard is a Palm OS application that provides users with options for encrypting individual or multiple files on an expansion card, or the entire contents of the card. SecureCard affords users and administrators the opportunity to choose from a variety of encryption algorithms which determines how the data is converted into Trust Digital's "ciphertext"—unintelligible text that is viewed on the PDA's screen before it is unlocked by an authorized user. This is particularly important for professions like law and medicine in which sensitive data is routinely exchanged electronically. Armed with SecureCard, for instance, visiting nurses can use Secure Card to encrypt confidential patient medical records and store them on a Palm-powered device's memory card, eliminating the need to access desktop PCs or search

## Infowave Pushes Corporate Email

Infowave, a major wireless solutions provider, has released Symmetry Pro, a hosted email service that allows mixed-platform offices running both Palm-powered devices and Pocket PCs to access Microsoft Exchange email from the road.

Symmetry Pro doesn't require a special email server or other hardware; it relies on a desktop software component to intercept corporate email and send it to the handheld, not unlike the way Treo Mail and Palm's i705 messaging works. Infowave claims that Symmetry Pro works with all Palm OS devices and requires no assistance from IT to install and configure the software—it's all done from the user's desktop.

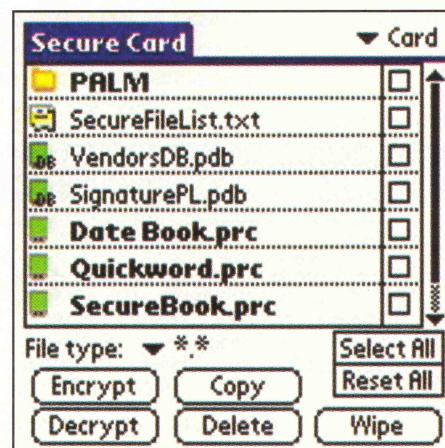
Symmetry Pro supports filters and rules to cut down on wireless traffic, and the software understands exceptions (such as the ability to get a response if you send mail to a filtered address). Users can also retrieve old email messages from the desktop, even if it was not originally synchronized with the PDA. Symmetry Pro also lets users access scheduling and tasks that are stored on the desktop. Pricing is about \$200/year, available from [www.symmetrypro.com](http://www.symmetrypro.com).



You can choose from among a half-dozen encryption algorithms when using SecureCard.

through hard-copies to retrieve time-critical patient data. The data can be kept fully confidential using SecureCard.

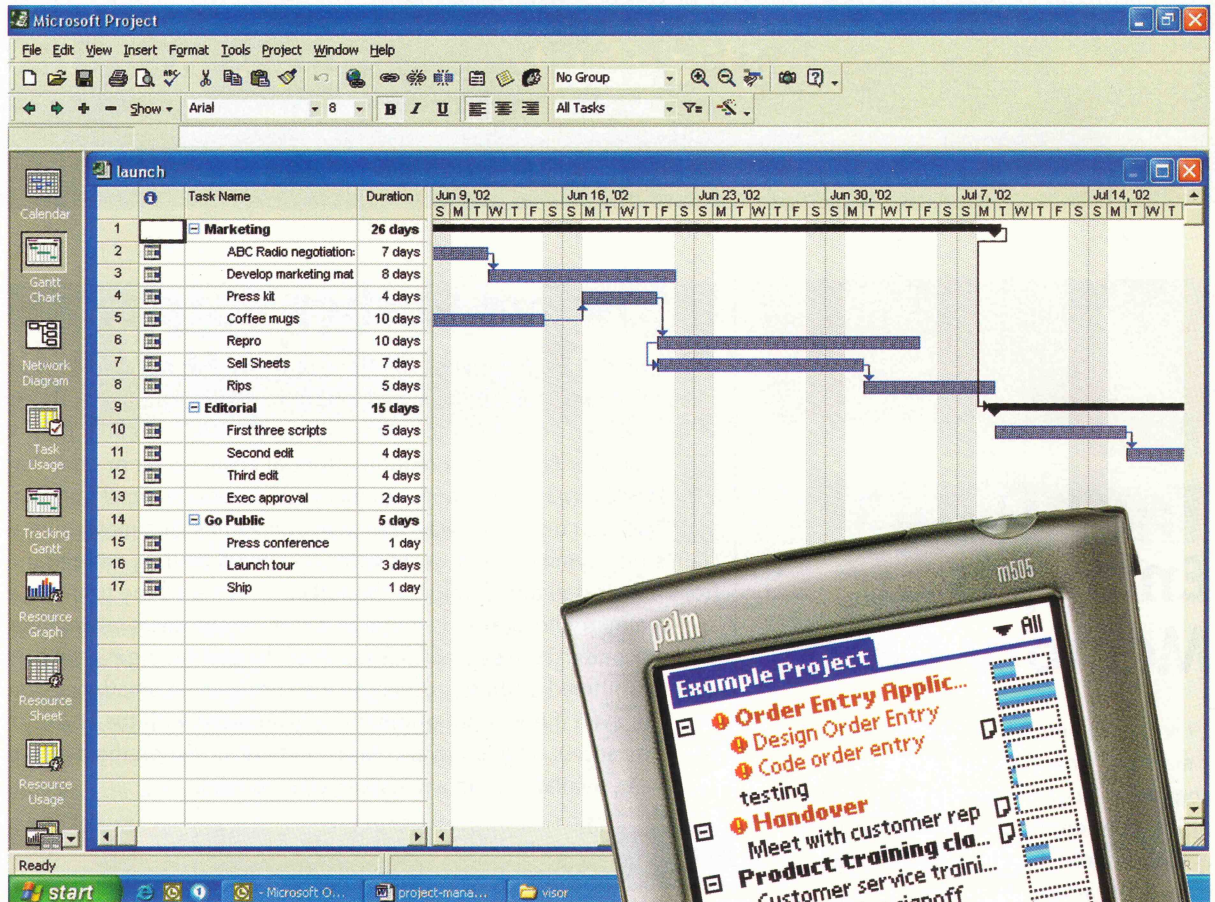
SecureCard has gotten the attention of IBM, which has endorsed its use in memory cards like the company's own CompactFlash Microdrive. "With an increasingly large mobile workforce, more employees are storing confidential information on the storage media in



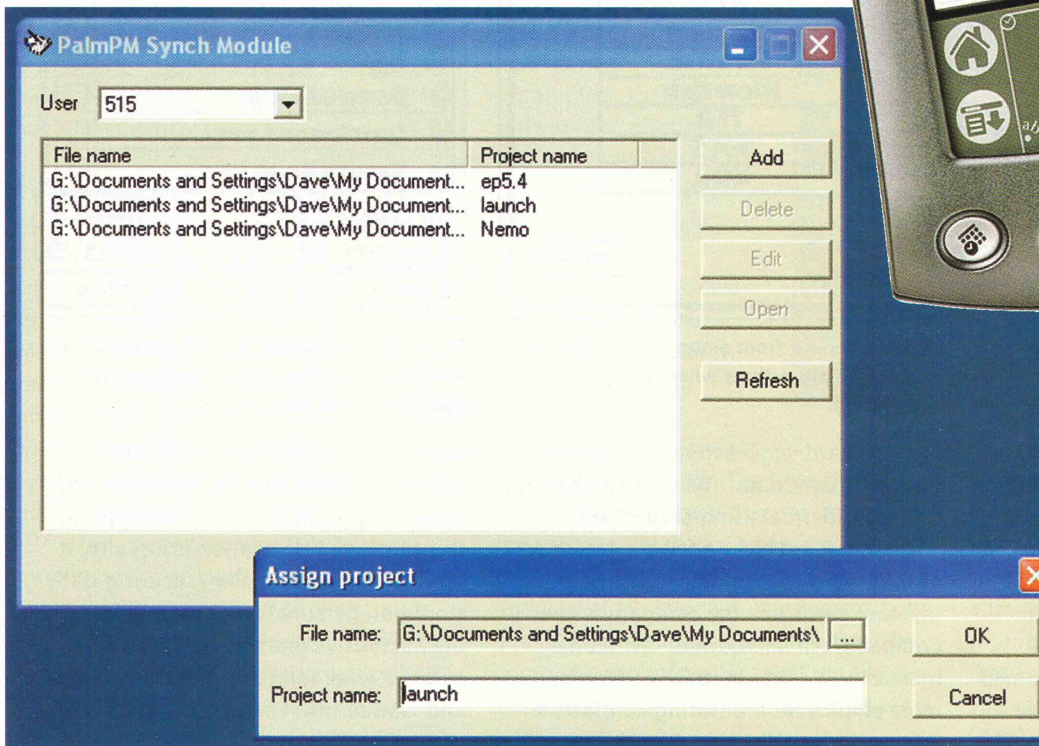
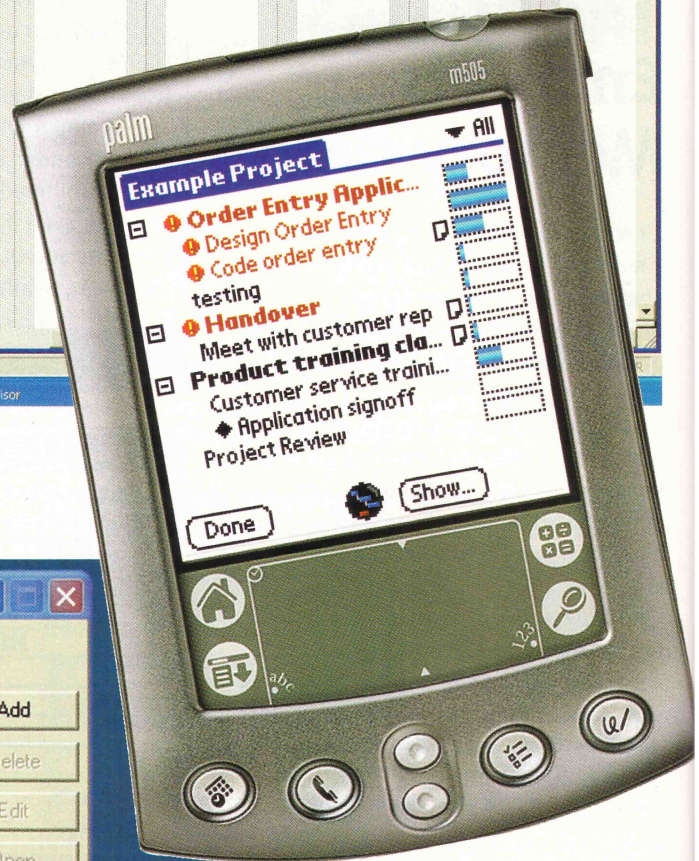
Trust Digital's SecureCard lets you choose which files on your expansion cards are protected from loss or theft.

their PDAs and laptops," says John Osterhout, IBM's worldwide director of marketing for Microdrive. "Encrypting this sensitive information is equally, if not more important than securing data stored on personal computers because the Microdrive enables data sharing across a wide range of portable devices and is used interchangeably among various platforms."





Microsoft Project is the cornerstone of many project planning programs, and you can synchronize it with your handheld.



The desktop component of Project Planner for Palm is simple but effective for installing Microsoft Project files on your PDA.



# Project Management Goes Portable

**It doesn't make sense to tie project management to your desk—it should be in your Palm.**

*By Dave Johnson*

**B**ehind every business success there's always someone with an eye on the details. No matter what sort of operation you have in mind—whether it's developing a new flavor of frozen pie, publishing a report that's been coordinated throughout your company's five divisions, or building a new retail location for your fast-growing business—you'll dramatically increase your odds of success by having a solid, detailed plan of operation.

That may seem obvious, but not everyone puts a lot of effort into planning business projects. Many projects—especially smaller ones that don't seem terribly daunting when the boss first proposes them—are managed informally and tend to get bogged down by missing resources and over-tasked employees. The result? Missed deadlines and unhappy clients. What the managers of those enterprises failed to consider is the value of a structured project management philosophy.

## Inside Project Management

But what exactly is project management? It helps to start by defining what we mean by a project: it's just a series of individual tasks that all contribute to a common goal. When project managers talk about projects, they're usually describing a group effort that changes their business in some tangible way. A project might be building a new structure, re-organizing the personnel within a company, creating a new product, or staging a company picnic.

In fact, a project can be almost anything—from the simplest to the most complicated series of steps. In the world of project management, a project always has a quantifiable conclusion that results in the accomplishment of a specific goal. A process that never ends, like managing the daily disposition of customer

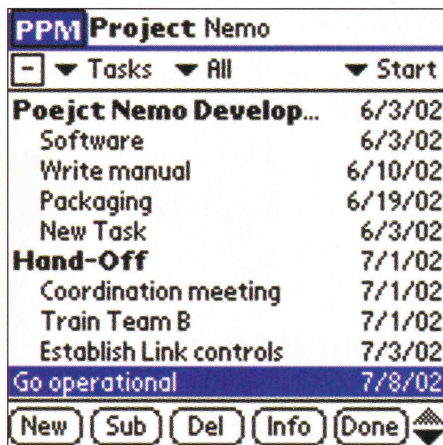
invoices, isn't usually considered a project because it doesn't end until the company goes out of business—and insolvency is rarely a good goal.

That a project is composed of discrete tasks may seem obvious, but it's an important distinction. Typing a report is not a project—it's a task, simply part of a larger project that might be "Stage the annual shareholder's meeting," or "Get zoning licenses to build new store." Project managers frame their projects as tasks because most projects are simply too daunting and complex to be readily understood all at once. Listing the important tasks helps managers come to terms with all the steps that need to be accomplished. By applying logical analysis to a project and coming up with a good list of tasks, you avoid problems downstream by clearly defining the scope of the project, the necessary resources, and timelines right away.

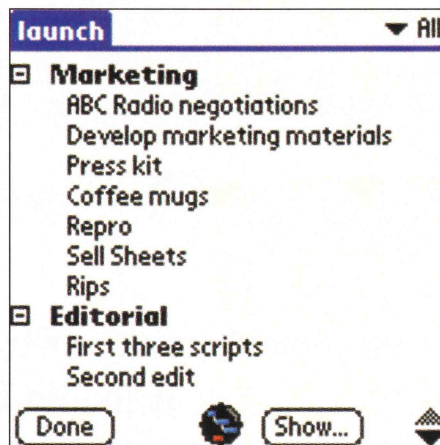
Indeed, project management is the formal name for any process that you implement to plan, monitor, and control a project. As part of the overall project plan, project managers define the goals, create a plan, identify necessary resources, manage the plan, and close the project when it's complete. All that's a tall order to fill without the aid of software, and it's no surprise that Microsoft Project is one of the most popular tools for creating and managing project plans. And while Project is indisputably an excellent desktop tool, you can't take your project plan with you to the work site, into the field, when meeting with co-workers, or when interacting with vendors and clients. Or can you?

Yes, you can. Microsoft, of course, doesn't offer a Palm OS conduit for its Project software. Nonetheless, there are a number of third-party solutions for squeezing project plans onto your Palm Powered handheld. Some programs are designed to be stand-alone project management tools, while others extract





Project Planner for Palm displays your Project files in an easy-to-follow outline form, with all of the key details stuffed into dialog boxes.



You can change the hierarchy of the tasks in Project@Hand simply by dragging the tasks around on the screen.



Project@Hand's Task Information dialog box makes it easy to change your deadlines and completion status.

files from Microsoft Project and let you view or edit them while you're on the go. Is access to your project files important when you're away from your desk? Wayne Miller, a sales and marketing manager for a BMW dealership in Kingston, Jamaica, thinks so. Miller routinely makes project plans to organize advertising and marketing campaigns, and he stores them on his Palm. He carries them on his Palm because he thinks leaving them on the desktop is a waste of resources: "People generally put a project plan together on the PC and only refer back to it when they have to deliver a presentation about it. I carry mine around with me, and I can refer to it all the time and update it when I need to. It makes my project plan a lot more useful."

### Coordinating with Microsoft Project

It's ironic that Microsoft bills the Pocket PC platform as the smart choice for users who want to access the most common applications, since a thriving market of office suites delivers superior Word and Excel functionality on the Palm OS. And curiously, until recently, it was only Palm Powered PDAs, not Pocket PC, that could project PowerPoint slides directly from the handheld. There's no question that, out of the box, Palm OS devices can't work with Project files, but then again, neither can a Pocket PC. With any of a small handful of third-party add-ons, though, you can work with your project plans on your Palm OS handheld.

**Project Planner for Palm**, from ITOS (\$29, from [www.itosweb.com](http://www.itosweb.com)), is a good example of a highly-polished Project companion. Project Planner comes with a desktop application that synchronizes Project 2000 files (but not Project 98) with a Palm OS application. Once they've been synched to the handheld, project plans are displayed in an easy-to-read outline format,

complete with subtasks nested under parent tasks. It is ideal for both project planners and project team members who want to be able to reference tasks, resources, and the interrelationship of activities while on the go.

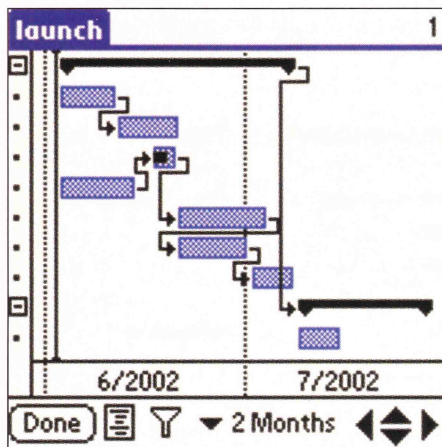
Since the program mimics most of the important elements of Microsoft Project, you can reference all of the key aspects of your project plan. A drop-down menu lets you switch from the task view to the resource view, where you can see important details about all of the people assigned to your project. In the task view, you can filter the display to show just the tasks for today, for the month, or the entire project. And you can adjust the onscreen details for each task—see the duration, start date, percent complete, or resources assigned, among others. While the program shows all of your subtasks by default, you can roll up the display and show only the top-level tasks—especially good for extremely large plans.

Of course, the program isn't a static project plan reader. You can edit just about everything in the plan, from resources to dates to completion percentages. You can also add new tasks and link them to existing events in the project, complete with project-friendly positioning like Finish-to-Start and Finish-to-Finish. Everything is updated on the PC after the next HotSync.

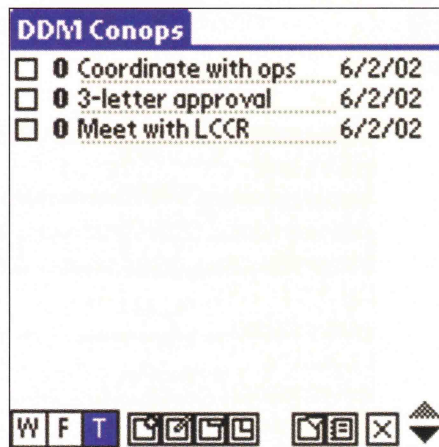
Natara's **Project@Hand** (\$49, from [www.natara.com](http://www.natara.com)) is another smart alternative for synchronizing with existing Project files. Like Project Planner for Palm, Project@Hand features a desktop conduit that transfers your Project files to the handheld, where you can view them in outline form, complete with the same subtask structure you originally generated on the desktop.

As you probably expect, you needn't just reference

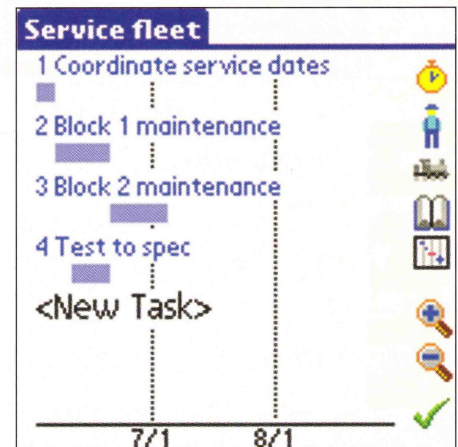




With the optional Gantt Chart for Project@Hand, you can display your projects in a visual timeline.



Palm Project works with three classes: the Wishlist, Features, and Tasks.



Perhaps the most elaborate PDA-oriented planners, Project Planner lets you build your project within a Gantt Chart, just like Microsoft Project.

an existing project, either; you can update the project plan on your handheld, and the updates are reflected on the desktop after HotSyncing. The program has an elegant interface, including a fuel gauge-style completion bar that you can drag with the stylus to update task progress on-the-fly (aesthetically, Project@Hand's fuel gauges are more attractive than Project Planner's pick list for selecting completion levels—but both accomplish the same thing). Every task can have associated resources as well. You can add tasks, change due dates and task durations, and even link tasks to other tasks in full Project style. Of course, Project@Hand isn't intended to be a stand-alone project planner, and like in Project Planner, you can't create new projects from scratch on the Palm.

By itself, Project@Hand only works in outline form. The heart and soul of any traditional project plan is the Gantt Chart, though. A Gantt Chart is a graphic representation of the project timeline that shows the relationship of tasks, subtasks, and deadlines with a standard language of bars and brackets. It's almost always the preferred way to view project plans on the desktop, and here is where Project@Hand excels in comparison to Project Planner. If you add Natara's \$15 Project@Hand Gantt Chart module, you can view any project in outline mode or as a Gantt right on the PDA. With Project@Hand Gantt Chart running, you can scroll around your projects and modify the display with a wide assortment of filters.

## The Handheld on its Own

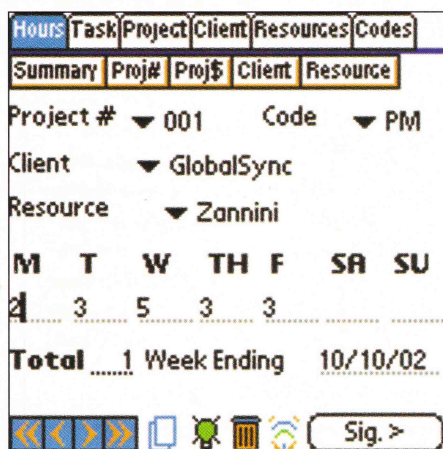
If you're not already a Microsoft Project user, you may appreciate a Palm-based project manager that doesn't rely on files which must first be created with a desktop application. **Project Wizard** (\$10, available at

PalmGear.com), for instance, was written by Isaac Gomez as a stand-alone, Palm OS-centric project manager. The program is ideal for laying out projects and processes using three phases of project design. Project Wizard assumes that you'll start with a wish list of tasks, not all of which will necessarily be feasible to implement. As your project assessment matures, you can promote these items to a more concrete "feature" status, and finally to tasks that must be implemented.

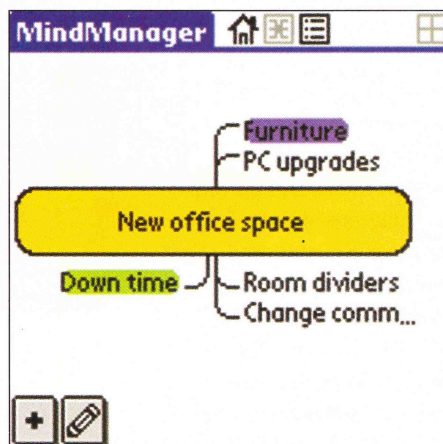
Obviously, the philosophy behind Project Wizard is ideal for situations in which you have to negotiate, due to time or money, which components will make it into your final project—like the potential features in a new software product, or what activities you can wedge into a corporate dinner. As such, it should be a favorite of creative design teams. Project Wizard is less useful for planning the actual timeline of events, though, since the coordination steps needed to get the job done are often not open to negotiation.

A more traditional project planner—in the spirit of Microsoft Project—is a program called **Project Planner** (\$15, from PalmGear.com), from Andrew Duffy. (Don't confuse this with ITOS's Project Planner for Palm, which is a different program.) Project Planner does indeed have a desktop component that accepts project plan files from a number of project management programs (though it has a clumsy transfer mechanism for Microsoft Project), but the application really excels at allowing you to create an entire project plan on the PDA from scratch. Armed with Project Planner, you may never need to use a desktop project planner application at all, especially for smaller projects and plans that don't require a lot of coordination with other team members. The only real limitation to keeping a project exclusively on your PDA is that it's difficult to





SyncProject is a powerful project planner that puts a lot of emphasis on time and billing functions, making it a good choice for independent contractors.



More free-form than a Gantt Chart, mind maps let you brainstorm all the essential components of a project before committing it to a formal schedule.

incorporate Gantt Charts into PowerPoint slides to show off your project's progress.

This program shows just how much you can do, even with the confined screen space of a typical Palm display. Project Planner's default view shows your project as a Gantt-style timeline, and you can alternately switch to a schedule view, look at your resources, or see other modes like notes and dependencies. You can add tasks, milestones, subtasks, and link those tasks to a specific date as well as the start or end of other tasks. Indeed, working with Project Planner feels like you're using a full-featured desktop project planner right on your PDA. The application can even be pivoted into landscape mode for the high-resolution HandEra 330 display. It's also just about the only project manager that can generate its own reports—you can send reports on resource utilization and deadline status to the Memo Pad for printing or synchronization back to the desktop.

Finally, consider **SyncProject**, from globalsync (it's available for \$12.50 from [www.globalsync.net](http://www.globalsync.net)). This program puts a time and billing spin on the project management motif. It's a comprehensive project planning tool for the Palm that focuses more explicitly on your client relationship and budget allocation; indeed, you can use the program to track costs and overruns more easily than with many other project managers.

## Mind Mapping

Traditional project management solutions—which use formal timeline structures like the Gantt Chart to associate tasks and responsibilities—are just one way to work through a project. Bernie Clark, a principal at the Oakland, California's consultancy Scivian LLC, works with several high-profile companies including a major

financial services company. He uses mind maps as his primary software tool for interacting with clients.

Mind maps are non-linear outlines that show the relationship between related topics. They often look like cascading groups of thought bubbles, with spider-like connections holding them together. The advantage of a mind map is that it allows project managers to build a complete image of the forthcoming project through interviews, brainstorming sessions, and free-form note-taking, without being restricted to a rigid format.

"When I meet with a client," Clark says, "the first thing I do is make a mind map. I pull out my Palm, and I have a template prepared with the nine areas into which I know all my information will go. Anything that comes up will fit into one of those disciplines, and I can just fill in the template as I go. I end up with something that's uniquely personalized for this client. And when I'm done, I can share the data. I can generate a Web site from it—it's very powerful stuff."

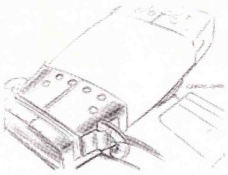
The leading mind mapping software for the Palm is **MindManager 2002 Mobile Edition**, from Mindjet (available for \$49 from [www.mindjet.com](http://www.mindjet.com), and recently reviewed in issue 5.1 of *Handheld Computing*). MindManager lets you create original mind maps on the Palm or synchronize with the desktop version of MindManager. Either way, you start with a central hub concept and branch out from there, adding ideas, tasks, and data in radiating branches. Branches can be nested, long-form notes can be attached, and the program makes use of graphic icons and color to highlight certain areas of a map. Though the program can stand on its own, its real power comes when you synchronize a map made on the Palm and feed it back to the desktop for inclusion in PowerPoint presentations, emails, or Web pages. Indeed, it's a worthwhile investment even for project managers who prefer traditional software like Project. As Clark contends, it can be a great way to initiate projects and develop a clear understanding of what your company's needs and goals really are.

## Hidden Assets

No matter what project management tools you use, putting the plans on your PDA is a smart move. You may already be a Project user, for instance, but if the only time you ever dust off the program is to update your timelines for this week's PowerPoint presentation, your project plan isn't really an asset to you or your organization. Carry it with you, though, and it's something you can reference and update as the project happens all around you. In the words of Wayne Miller, "If I had to wait until I got to my desk, I probably wouldn't bother. Most people just don't know how much they can get out of a project plan until they carry it on a Palm."



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## Infrared Access Points

Connect your handheld to your network with the EthIR LAN 301 and Compex irdaNet iRE201, no wires or cards required

**T**raditionally, Palm-powered devices have had very little to say to local area networks. They come from different sides of the tracks: PDAs might occasionally use a wireless modem to access the Internet, but LANs thrive on connecting multiple PCs to share data and aggregate Web access. These days, the two are meeting in the unlikeliest of ways—via infrared access points that let Palm OS devices catch the network wave without wires, modems, Bluetooth, or any other esoteric technology. If you'll let us coin a phrase, you just "point and network" with the same IR port that Palm-powered devices have always had, as if you were simply beaming a business card. Advantage: any Palm OS device can

use these access points without the need for additional hardware.

Compex touts its iRE201 Infrared Wireless Access Point as a gadget that's "Designed For Palm Handhelds." At first blush, everything about the Compex is love at first sight. The price (well under \$100) is excellent, and the transceiver itself is a one-piece affair that's about an inch thick and

only five inches high—it won't waste any space on your desktop. Slightly more ambiguous feelings start to creep in when you try to set it up. Despite the Palm-friendly hype, the user guide never mentions how to get the device to work with a PDA, and the directions don't really explain how to get it set up at all, actually. There are a few pages about setting IP addresses, working with an online command console, and other configuration details. The real deal, though, is this: just plug it into your network and wait a minute or two. The iRE201 queries your system's DHCP service and finds its own IP address more or less magically. Then you're done.

From here, we found ourselves on our own. We searched fruitlessly for a way to get our Palm m515 to perform a network



Clarinet's EthIR LAN 301 had us HotSyncing and surfing up to 8 feet from the transceiver.

HotSync using the IR access point, and eventually called the company. At press time the company sent us a draft version of a document that outlined how to do a network HotSync using the iRE201; we hope this documentation will be available at [www.cpx.com](http://www.cpx.com) by the time you read this, and that it will be packaged with the device going forward.

Although we initially had problems setting up a HotSync, we had no trouble using the iRE201 to access the Internet. Indeed, after adjusting the PDA's connection preferences, we could surf around the Internet just by pointing it vaguely in the direction of the access point from up to three feet away. Compex designed this little guy for a

### EthIR LAN 301

#### CONTACT:

Clarinet Systems  
[www.clarinetSYS.com](http://www.clarinetSYS.com)

Requires: A LAN or PC with Ethernet port;  
any Palm-OS PDA

Price: \$345

#### THE GOOD:

8-foot range, multi-port options, fast  
wireless connection speed

#### THE BAD:

Expensive

#### VERDICT:

The best infrared access point for large  
and small businesses





wide coverage zone; dual transceivers behind the translucent red dome give you a pair of 120-degree reception zones. Even better, Compex includes a third transceiver that's tethered to the end of a six-foot extension cable. It lets you set up a separate reception zone in your office, albeit only a short distance away from the main transceiver.

Clarinet Systems offers its own infrared access point, the EthIR LAN 301. Unlike the Compex model, Clarinet's EthIR LAN is expensive—\$345—and takes up moderately more desk space. A base unit, about the size of a paperback novel, connects to a compact IR transceiver via a six-foot cable. It delivers a somewhat more focused beam, but with significantly more range—we could successfully connect up to eight feet away. Overall, Clarinet's system is more flexible, and is clearly designed with the enterprise in mind. While we tested the company's single port solution, you can get EthIR models with up to 16 infrared ports that can cater to multiple users simultaneously.

Clarinet's user guide is somewhat better than the Compex version. We could follow the setup directions to plug the device into our LAN's hub, where DHCP magic once again automatically configures the access point with an IP address and adds it to your network. Like a case of Groundhog Day, though, we again found that's where the help ends. It took a phone call to Clarinet to find that we needed a Palm OS infrared driver file from the Clarinet Web site to be able to put our PDA into play. Once we got there, we found that the Web site was written with handheld users in mind—there's a lot of information there to get Palm OS (as well as Pocket PC) users up and running.

Once installed, the EthIR allowed us to perform network HotSyncs wirelessly, and to access the Internet for Web

surfing, email access, and other tasks like AvantGo updates. And after a little experimenting, we discovered something quite surprising—we could use the Clarinet infrared driver with the Compex access point as well. Since the Clarinet driver is freely available from the Web (in Clarinet's download section), it makes sense to get it yourself if you do indeed purchase the Compex access point. That gave us the ability to compare the speed of the two units side-by-side, and here is where the EthIR's higher price proved worthwhile. We performed the same short HotSync (with only the Date Book, Address Book, To Dos, Memo Pad, and AvantGo set to synchronize) three times. A typical cradle HotSync took 64 seconds. Clarinet's EthIR managed the task in 96 seconds, while the Compex iRE201 took a lethargic 15 minutes. We saw similar performance while on the Internet. Pointing a Palm m515 equipped with Eudora's Web browser at the Clarinet, we could load CNN.com in about 15 seconds. The same page then took 76 seconds on the Compex. Just for reference, our desktop PC with a broadband connection loaded it in nine seconds.

The Compex iRE201 claims to be just as fast as the Clarinet EthIR—up to 4Mbps when communicating with a Fast IR port, such as you'll find on a laptop—but Clarinet clearly wins the speed contest in real-world PDA usage. Indeed, if we were investing in an infrared access point, the Clarinet would be the obvious winner. Not only is the EthIR better suited to multiple users and a fast-paced office environment, Clarinet Systems seems to have a better grasp of the PDA market.



The compact Compex iRE201 delivers Internet access to your PDA via a LAN connection.

The Compex iRE201 is an inexpensive alternative and may be the right choice for a home office network, but the sluggishness of the system is sure to frustrate most users.

—Dave Johnson

## Compex iRE201

### CONTACT:

Compex  
www.cpx.com  
Requires: A LAN or PC with Ethernet port  
Price: \$99.95

### THE GOOD:

Wide coverage beam, second transceiver for second coverage zone, small size

### THE BAD:

Poor documentation for Palm OS usage, short reception range

### VERDICT:

An inexpensive choice with performance problems; only tenable in a home office





## Treo 90

### Handspring's Phoneless Treo

#### CONTACT

Handspring  
www.handspring.com  
Requires: PC or Macintosh  
with USB port  
Price: \$299

#### GOOD

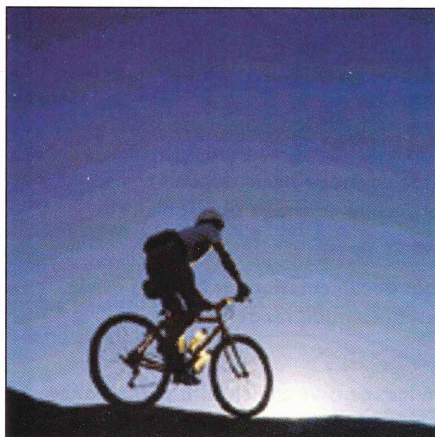
Very compact, built-in keyboard, good screen, expandable.

#### BAD

Screen ghosts in games, no Graffiti or SD I/O support.

#### VERDICT

A nice, compact PDA for those who prefer a keyboard, but how could Handspring botch expandability?



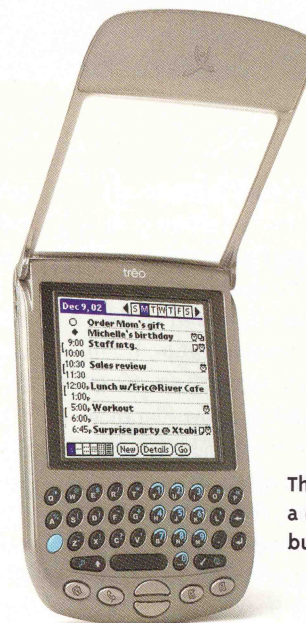
The Treo's screen shows only 4,096 colors, a limitation most obvious when displaying images. Note the banding in the sky here.

Despite its name, Handspring's Treo 90 actually has as much in common with Palm's similarly equipped m130 as it does with the original Treo 180. The Treo 90 is a pure organizer, with no built-in telephone or wireless modem. Aimed at handheld buyers who prefer a (tiny) keyboard to Graffiti, this color handheld is the first expandable Handspring organizer that doesn't use the Springboard cartridges.

The Treo 90 uses a 33MHz Dragonball VZ processor, and like its phone-equipped cousins, it boasts a roomy 16 megabytes of memory. Unlike the Treo 180 and 270, this organizer also features an expansion slot. The Treo's compact size precluded adding a slot to accommodate the relatively large Springboard cards, so Handspring opted to support Secure Digital (SD) and MultiMedia Card (MMC) memory cards instead. We applaud this, as it establishes SD/MMC as a standard for Palm OS handhelds, with Handspring, Palm, and Handera all using the technology. Only Sony remains a rebel, with its proprietary Memory Sticks.

It was Handspring that initially popularized the idea of expandable Palm OS handhelds, so it's surprising to find a half-hearted SD implementation here. The slot supports SD and MMC memory cards, but doesn't support other types of SD I/O expansion devices such as the Palm Bluetooth SD Card. This is disappointing, as the tiny, 4 oz. Treo 90 would make an excellent companion to a Bluetooth cell phone. Handspring's FAQ for the device states that the company "may" support SD I/O via a future software update, but we never suggest making a purchasing decision based on possible support.

Although it lacks built-in wireless capabilities, the Treo is primed for connection to the Internet via an infrared or cable connection to a cell phone. Handspring bundles the Blazer 2.1 web browser, the excellent One-Touch Mail email app, and an SMS (Short Message System). During the



The Treo 90 offers a color screen and a built-in keyboard.

software install process, a wizard makes it easy to configure dial-up networking and email settings.

The Treo 90 runs Palm OS 4.1, a first for Handspring. It includes the enhanced Date Book Plus scheduler application, as well as Contacts, an Address Book replacement optimized for keyboard use. It works very well, speeding lookups when you have hundreds of names. Just type the first few letters of a first or last name and entries that match those characters will be displayed. As a bonus, a free copy of the Wordsmith word processor is also included.

Other than its lack of an antenna, the Treo 90 looks almost identical to the new Treo 270. Its 12-bit, 4,096 color screen is viewable both indoors and in direct sunlight. It's extremely "pocketable," with a small form factor and a flip cover to protect the screen and keyboard. It's only available with the 34-key keyboard; there's no Graffiti version, although third party utilities like Jot and RecoEcho can add Graffiti recognition. Like the phone models, it includes a USB HotSync cable and a travel charger, rather than a cradle. The HotSync connector is identical to that found on other Treo models.

The Treo 90 is a nice entry-level organizer for those who prefer a small keyboard to Graffiti. Just be aware that its expansion options are limited: There are few add-ons for the Treo's HotSync port (no full-sized keyboard such as the Stowaway, for instance), and the SD/MMC slot accepts only memory cards. That's not what you'd expect from the company that virtually pioneered expandable handhelds.

—Denny Atkin



# Treo Mail

## Inbox synchronization optimized for the Treo

**W**e think that Handspring's Treo Communicator is a hit. The ergonomic clamshell design, choice of Graffiti or keyboard, great smartphone software, and 16MB of internal memory almost makes up for the lack of an expansion slot. When Handspring introduced it several months ago, the communicator only lacked one thing: a business-savvy email client that could make it compete with the Palm i705 and RIM BlackBerry.

Even then, Handspring was readying just such a product. Treo Mail provides wireless access to your existing POP and corporate email accounts through a combination of software and services. There are two versions of the service. The Corporate Desktop Edition is for business professionals who need to access Microsoft Outlook messages via a Microsoft Exchange server located behind a corporate firewall. Each user who wants Treo Mail must install the Treo Mail Desktop Assistant on their desktop PC; that program processes and forwards messages to the Treo, so the desktop must be left on with a live Internet connection to work. Non-corporate users will no doubt prefer the Internet Edition, which sends and retrieves ordinary POP email.

Strangely, the consumer-oriented Internet Edition is actually a bit more flexible, since there's no desktop component involved. Instead, the Treo Mail Service Operations Center is a remote server facility that checks your ISP's mail independently of your PC and stores a copy of your messages for later download to the Treo.

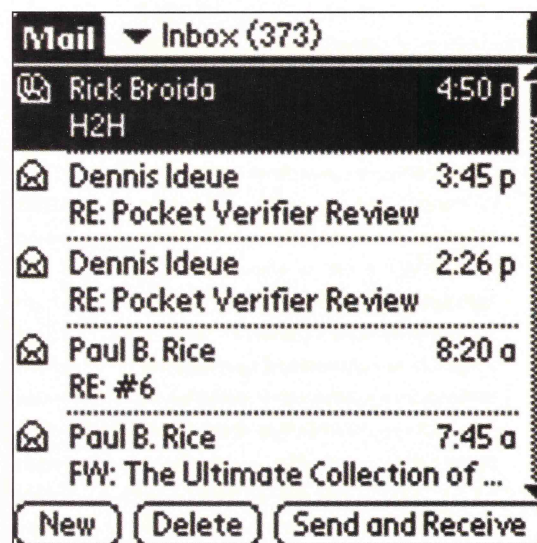
On the Treo itself, Treo Mail is a no-frills mail client. It supports just one email account, so you can't configure it to check both work and home accounts. The inbox displays each message on two lines, and though unread messages appear in bold, they're hard to distinguish from read messages. There's no way to quickly select a large number of messages for deletion, and Treo Mail can't display or edit attachments (though it can forward attachments to another email account). Treo Mail was intentionally designed to look like the Treo's SMS program, and that may be part of the problem—the display just isn't optimized for email.

Nonetheless, Treo Mail has some surprisingly convenient features. It has a flexible email filter

(that you must configure from the desktop) to block certain kinds of messages. And even though the Treo's standard cellular service doesn't allow for push-email messaging (which would automatically deliver new messages directly to the handheld), Handspring manages to simulate "push." You don't get the actual messages, but your Treo does let you know when new email is waiting. If you prefer, your Treo can automatically check for messages at pre-set times of day.

Corporate users may need Treo Mail to get access to messages from their Exchange server, but Internet mail users have a choice: there are many ways to get messages on the Treo, including the mail client that comes with the Treo for free. And don't be misled: the Treo Mail subscription fee doesn't cover your ordinary dialup charges to connect to the Treo Mail server. So why would anyone pay a yearly fee for Treo Mail, Internet Edition? It has a few interesting features, like new message notification that can help you avoid airtime charges spent blindly checking for new mail. You'll have to decide if that's enough for you; in the meantime, we hope Handspring improves the client to make your email experience a bit more practical.

—Dave Johnson



The Treo Mail client looks and works almost exactly like the Treo's SMS application.

## CONTACT

Handspring  
[www.handspring.com](http://www.handspring.com)  
Requires: Handspring Treo  
Price: \$49.99/yr (Internet Edition), \$99.99/yr (Corporate Desktop Edition)

## GOOD

Simulates push-style email; provides access to corporate mail servers.

## BAD

Dial-up data charges not included; bare-bones email client lacks features; no support for multiple accounts.

## VERDICT

Handspring's email solution for the Treo works for corporate email, but there are better options for Internet mail.





## DateBk5

### A powerful force in schedule management

#### CONTACT

Pimlico Software, Inc.  
[www.pimlicosoftware.com](http://www.pimlicosoftware.com)  
 Requires: Palm OS 2.0 or higher  
 Version Tested: 5.0a  
 Size: 600k  
 Price: \$24.95; discounted upgrade pricing and license packs also available

#### GOOD

Outstanding integration with other applications, so many features your head will spin.

#### BAD

A steep learning curve with dense preference screens and too many options clustered together.

#### VERDICT

The hands-down best replacement for the Date Book that money can buy.



Following in the footsteps of my Jedi masters, I plan to someday establish my own religion; complete with mystery, mysticism, and the ability to push people off high cliffs with just a wave of my hand. My religion will revolve around the only piece of software for the Palm OS worthy of such a distinction: Pimlico's DateBk5.

Technically, DateBk5 is designed to be a replacement for the Date Book application that comes with your Palm-powered device, but make no mistake: Thinking it's a simple substitute would be like underestimating the power of The Force. DateBk5 has so many features, so much depth, and so much raw power that it redefines the way you use your calendar, supercharging your PDA in ways you would never have expected. And this new update refines DateBk in countless ways without dramatically changing the program for existing users.

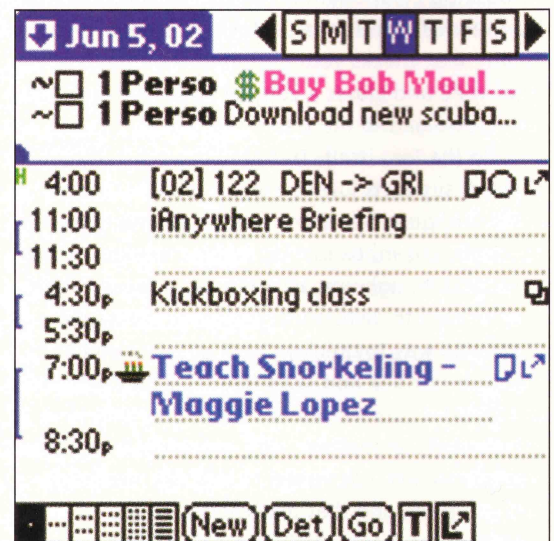
If you're new to the DateBk experience, you'll find the program's most interesting features are its split screen and total device integration. Enable the split screen, for instance, and you can see your To Dos, Memo Pad, or Address Book atop the screen, with the calendar below, complete with a divider bar that lets you control what percentage of the screen each app gets. There's solid integration across the apps in more ways than just the view. DateBk lets you "link" items from the various applications to each other, so an appointment can have a link to both an Address Book entry and a memo. This is an incredibly useful feature, since you can open information related to an appointment with just a single tap.

There's a profound depth to the program's scheduling features. DateBk5 understands time zones, for instance, which allows you to schedule distant events to occur in their own time zone. Instead of making time zone conversions in your head, just enter a teleconference for 2 p.m. EST, and the appointment will appear in your calendar at the right local time, adjusted for your home time zone. The repeat control for recurring appointments has an "irregular" mode that lets you pick any sequence of dates off of the calendar, great for oddball meeting schedules. And if you

place a four-digit year in the description of an annually-recurring appointment, it'll automatically report how many years it has been since that date—just the thing to keep track of birthdays and anniversaries.

Another powerful feature is the ability to make countdowns to specific appointments "float" through the calendar, giving you advance warning that they're approaching. If you want to schedule a call to someone in your address book, you can create an appointment for that person with just a single tap. To Dos can be set to alarm, and you can tell at a glance whether they're upcoming or already late. DateBk5 also comes with a few new calendar views with enhanced "visibility." Tap on a day in the year view, for instance, and you'll see a list of all the events scheduled for that day. Even beaming takes on new strength in DateBk5. When someone beams you data, you have the option of assigning all the items to a single category named after the sender.

All that's great, but DateBk has traditionally lacked the visual impact needed to help you distinguish important events at a glance. New features in DateBk5 include the ability to create appointments and to dos with special formatting.



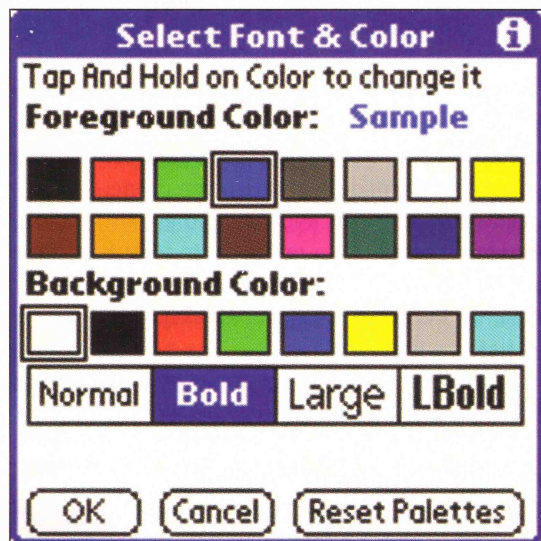
The split screen lets you combine To Dos, memos, or addresses with the calendar.



You can select the color of text and foreground, as well as bold or enlarged text—so certain appointments can appear in red, or important tasks can have a highlighted background. Likewise, you can tack icons to the front of items. DateBk5 comes with a wide array of color and grayscale icons to dress up your calendar.

Most of the program's other improvements are small, but they add up to a much better experience. There's a button to clear all of your outstanding alarms with a single tap—good if you've stacked up a dozen alerts after leaving your PDA home for the weekend. There's a very cool date picker that has a pop-up list of the last ten dates you've selected. In addition, To Dos now have nearly all of the same repeat settings as appointments. You can set alarms for To Dos, of course, and you can customize the alarm sound for each kind of event. Pimlico claims that DateBk5 is now OS 5 ready, so it'll make the transition to new Palm OS devices smoothly later this year. Speaking of new devices, DateBk5 also has improved support for high-resolution screens, like those used on high-end Sony Clie models.

Like handling a light saber, controlling all the unbridled power in DateBk5 takes some practice. You can master the basics—the split screen, linking, fancy text formatting, multiple alarms, and that sort of thing—in no time. But the program's dense array of options and preferences is nothing short of intimidating. Pimlico tried to help by streamlining the options in version 5, but



Color icons and fancy formatting lets events stand out from the crowd.



Not only can you view upcoming appointments in list mode, you can export it to the Memo Pad—ideal if you use DateBk for time and billing.

there's still work to be done. Worse, some features simply aren't easily discoverable—many controls do more than one thing, with alternate functions only appearing when you tap-and-hold the stylus. You could go weeks, for instance, without discovering that a tap-and-hold on an appointment reveals a context menu of very cool additional features. DateBk padawans could probably master a new trick every day and still be learning some of the nuances of DateBk5 a month or two later.

That said, DateBk5 comes with a lot of documentation. The new features list itself is 13 printed pages long, and a complete user guide in Adobe PDF format clocks in at 100 pages. And DateBk5 is surely the only program for a Palm-powered PDA complex enough to warrant its own how-to Web site: The DateBk Cookbook (at [how.to/datebk-cookbook](http://how.to/datebk-cookbook)) tries to de-mystify the sometimes arcane user guide with step-by-step instructions on how to perform many real-world tasks with the program.

If you live by your PDA's schedule, DateBk5 could be the best \$25 you've ever spent. Trust us: it's worth every penny, and then some. Even better, Pimlico donates all of the profits from the DateBk series to Gorilla Haven, a wildlife project that will result in a sanctuary for Western Lowland Gorillas in Georgia. Try DateBk5 on your own handheld and feel the power of your PDA surge through you.

—Dave Johnson



## ProFile Utilities

### An all-in-one file manager

#### CONTACT

Proporta Ltd  
www.proporta.com  
Requires: Palm OS 3.5 or higher  
Version Tested: 1.1  
Size: 170k  
Price: \$25

#### GOOD

File compression and security tools; ability to beam "locked" files; excellent memory card support.

#### BAD

Interface makes poor use of the PDA's available screen space; can't launch apps from the main file list.

#### VERDICT

A complete file manager with unexpected features.



If you salivated over that classic Saturday Night Live "commercial," wishing that there really was a floor polish that doubled as a dessert topping, then Proporta has a program for you. Profile Utilities is an all-in-one file manager that tries to do a little of everything. To describe Profile Utilities in a dozen words or less, one could call it an application launcher that also includes security and compression features. You'd even end up with three words to spare, allowing you to add, "it's in color."

Though it's an application launcher, Profile eschews the traditional approach of letting you tap on program icons. Instead, you get to your apps through a coiled spring, which opens a menu that resembles the Windows Start Menu. You can easily edit the menu categories, and arranging programs within the menu is a matter of drag and drop from one category to another (just the way it works in Windows, in fact).

Launching programs is a small part of the overall mission, though. The screen is divided into three zones: a trio of folder tabs at the top of the screen, a context-sensitive middle region, and a row of utility icons across the bottom. The program starts with the Profile tab in control, and here you can see details like your available memory and battery strength. You can also view the time or today's appointments and to dos. Proporta even includes a small doodle region, where you can jot quick notes in digital ink (not Graffiti!).

The other tabs—Memory and Card—display all of the files stored on your PDA.

Unlike most launchers, this is a true Palm OS file manager. You see all of the files stored on your device, even data and supporting files that are usually hidden from sight.

So what can you do with that file list? Drag a file down to the zip icon, for instance, to compress

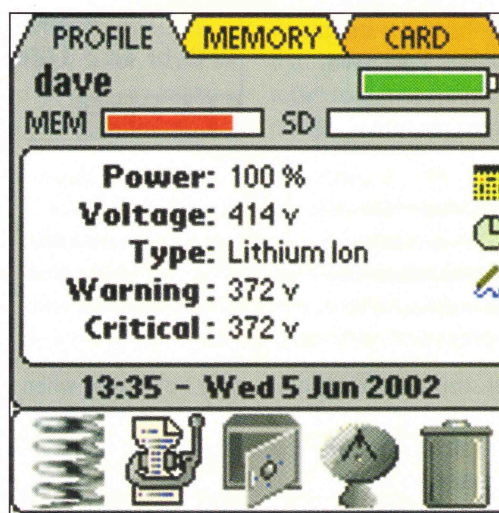
it and shrink the file by about 50%. You can use this compression tool to archive large applications or data files you rarely use—but you need to uncompress them before use. There's also a safe; any apps or data you place in the safe are encrypted with a variation of the XORing algorithm and stored behind a password. The program also has the requisite drag-and-drop beam and trash tools.

Profile Utilities packs a lot of innovation into a single program, and it's worth checking out

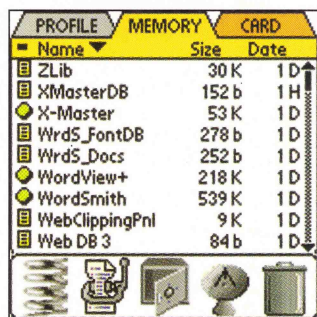
if you feel that your PDA's operating system is just too limited. The program isn't quite a soufflé yet, though. For starters, the program makes poor use of screen real estate. The tabs atop the screen and the icons at the bottom are huge, subtracting from space that the middle of the screen desperately needs for listing files and calendar events. Proporta should hire a real artist to scale back the size of these elements and, while they're at it, enhance the program's look. Right now, it's all as flat as a junkyard tire.

Nor you can launch an app or data file from the main file list; you can only do that from the launch menu. And the trash is a real trash can; it's not a recycling bin that holds files for later. Though Profile Utilities is clearly a work in progress, it shows a lot of promise. We think the next version will be something very cool indeed.

—Dave Johnson



Profile Utilities uses a tabbed interface with oversized icons to let you manage virtually all of your Palm OS file management needs.



Profile Utilities uses a tabbed interface with oversized icons to let you manage virtually all of your Palm OS file management needs.



## MobileModem

**Motient's wireless email device offers superb coverage**

**M**otient's MobileModem is a wireless solution for Palm-brand handhelds that focuses on email. This compact sled for the Palm V- and m-series handhelds uses Motient's data network to provide excellent coverage, even deep within large buildings. While you won't be able to browse the latest sports scores or order that new novel from Amazon.com using this device, you can travel confident in the knowledge that you can retrieve your email in most populated areas.

We tested the Palm V/Vx version of the MobileModem, a sleek, red-and-black clip-on sled that doubles the thickness of the handheld and adds about a half-inch to its height. (Two inches if you count the antenna.) Motient also plans to ship a version for Universal Connector-equipped Palm m-series handhelds.

Motient's wireless network uses technology similar to two-way pagers, so requests to check email can take a few seconds to go through. This limits the MobileModem's out-of-the-box functionality to email and sending faxes. Enterprise customers can work with

Motient to deploy custom applications on the device using Motient's wireless data services.

Although this means the MobileModem isn't as flexible as some other wireless solutions, it does have its own advantages. Email is delivered via "push" technology: That is, you don't have to remember to check your email. When a new message arrives, it's automatically sent to the MobileModem, which alerts you with a vibration or beep and powers on your Palm. The biggest advantage is excellent indoor and outdoor coverage in most mid-size and larger towns. Motient actually understates its network

coverage—it's rated as "outside only" in the town where Handheld Computing's editorial offices reside, but we had a strong signal even deep inside our building. If you often travel to areas of the country where GSM smartphones and Palm's VII/i705 can't get a signal, Motient's network may be the solution for keeping you wired.

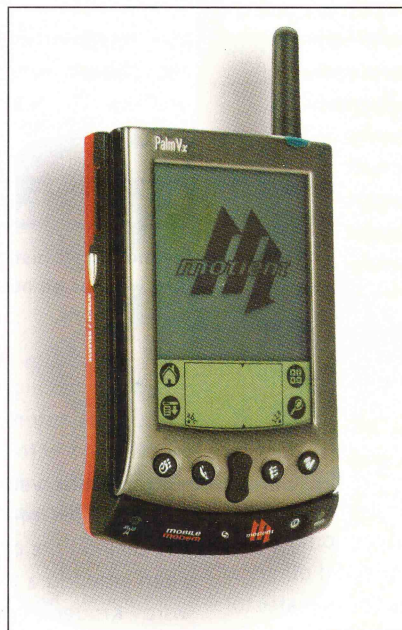
You can set up a custom mailbox on Motient's eLink mail service, or have it forward letters from your regular POP3 or IMAP email account. Unfortunately, you can't set up multiple email boxes; we'd like a way to check both work and personal email. Two plans are available: 150K of email per month for \$19.95 and 20 cents per KB over the limit, or \$49.95 for all-you-can-eat. Both plans also includes toll-free paging. Finally, you can send text messages to a fax machine for 99 cents per printed page.

A fully charged MobileModem is well-prepared for extended road trips—Motient says the battery can last up to five days, even if the modem remains online 24 hours a day. The device's HotSync

cable includes a small power brick that will recharge both the Palm and the MobileModem, so you can leave your Palm's charge adapters at home.

Motient's email application could use some beefing up—we'd like to see support for multiple accounts and for sending and receiving attached office files. But for basic email service that will reach you in less populous areas and deep inside office buildings, the MobileModem is an excellent option.

—Denny Atkin



The MobileModem adds wireless email access to the Palm V- and m-series handhelds.

### CONTACT

**Motient**  
[www.motient.com](http://www.motient.com)  
 Requires: Palm V/Vx, Palm m-series  
 Version Tested: Palm V  
 Price: \$279 (\$179 with service contract)

### GOOD

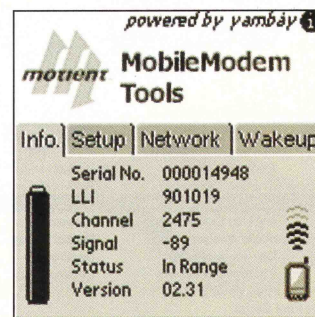
Superb coverage, indoors and out; push-style email.

### BAD

No web browsing or PQA support

### VERDICT

An excellent solution when constant email access is critical.



We found the MobileModem to be usable indoors even in some fringe areas where Motient promises only "street" coverage.



## ListPro

Who knew tracking lists could be fun?

### CONTACT

Ilium Software  
www.iliumsoft.com  
Requires: Palm OS 3.0;  
Windows 95 or newer for  
desktop version  
Version Tested: 3.0  
Size: 206k  
Price: \$29.95 (\$24.95 for  
Palm OS-only version)

### GOOD

An extremely full featured  
list maker and data organ-  
izer that will prove useful  
for countless data manag-  
ing tasks.

### BAD

Some of the functions take  
a while to learn to use, or  
to find amidst the many  
drop down menus.

### VERDICT

Definitely a great tool for  
data organization.



#	Task	Who	Days	Start Date
1	<input checked="" type="checkbox"/> Preliminary Investigation			
2	<input checked="" type="checkbox"/> Assign Resources	Product Management	1	10/8/01
3	<input checked="" type="checkbox"/> Evaluate Market	Product Management	10	10/9/01
4	<input checked="" type="checkbox"/> Generate Market Report	Marketing	3	10/9/01
5	<input type="checkbox"/> Analyze Competition	Marketing	5	10/12/01
6	<input type="checkbox"/> Feasibility Analysis	Product Management		
7	<input type="checkbox"/> Lab scale product	Development	10	10/22/01
8	<input checked="" type="checkbox"/> Production Process	Development	5	11/5/01
9	<input type="checkbox"/> Decision Point 1	All	1	12/1/01
10	<input type="checkbox"/> Pilot Stage			
11	<input type="checkbox"/> Assess manufacturing	Development	10	
12	<input type="checkbox"/> Environmental Issues	Product Management	12	

Slipped by 2 days due to training (10/11). Slipped by 1 day (10/13)

63 Items (16 Checked)

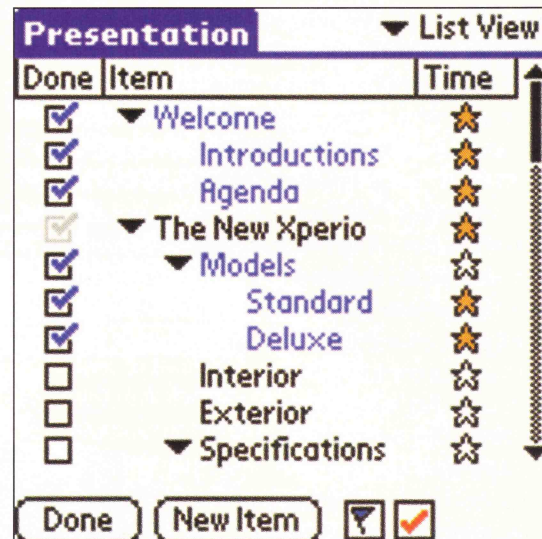
ListPro's Windows counterpart is a useful app in its own right, and it HotSyncs with the Palm OS version.

Ilium Software claims ListPro is the "ultimate list and info manager for your Palm," an assertion it's difficult to argue against. If you need to organize lists of virtually any sort of data, you'll find that ListPro is a versatile tool. Shopping and parts lists, movie and CD collections, and just about anything else you might want to track are a snap to organize with this handy tool. While there are numerous list managers for the Palm OS, few can match ListPro's wealth of customizable options, which allow you to personalize data.

ListPro comes in several different flavors. There's a version that includes both Windows desktop and Palm OS components, as well as a standalone Palm OS version. (For multi-platform households, there's a Pocket PC version as well, but alas there's no Mac version of the desktop application.) The desktop component adds a mere \$5 to the price, and Windows users will likely find it well worth the price to be able to organize and update lists both at your computer and in the field. In addition to syncing with the desktop version, ListPro lets you beam lists between handhelds—great for passing on the shopping list.

ListPro's extensive options allow for some impressively creative list making. While the Ilium offers 250 pre-built list templates—a shopping list, music collection, To Do list, and a variety of others—the real fun comes from making new lists to cater to your specific needs. Building a list is as easy as naming your columns—of which an unlimited number are available. You can set flags for important items, alarms for dated selections, and even include Yes/No columns and sub-lists.

The program offers a variety of sorting options, making it easy to organize your list in different ways (a-z, z-a, by specific columns, by flagged items, etc.). You can color-code items, making them easy to pick out of a list at a glance.



Far more than just a shopping list tracker, ListPro can also work as an outliner for organizing thoughts and presentations.

Other intelligent touches abound, such as the way ListPro automatically remembers items that you've used before. So, if pork chops are on sale at Kroger this week, for instance, and you've included the store's name in previous lists, you can just click on the down arrow beside the Store field when entering a new item. From there, just find the word "Kroger" in the drop down menu and select it. If you're particularly forgetful, you can even set an alarm to remind you to buy those chops before they go off sale at the end of the week.

Admittedly, the power of ListPro goes far beyond mere grocery lists. This is perfect for both casual and professional users who want to keep various kinds of data sorted in an easily organized format. If there are is a real flaw here, it's that learning to use some of the more advanced features takes a little bit of time, especially when you have to hunt through the various drop down menus to find the option you're looking for. Regardless, this is a powerful little tool for on-the-go data keepers, and may be all the database the casual user needs.

—Jason D'Aprile



## Wireless Link Keyboard

**Proof that ingenuity knows no bounds**

**W**e've yet to find a keyboard that can make us toss our trusty Stowaway (a regular Top Pick and Product of the Year winner), but the Wireless Link Keyboard has us thinking about it. Not because it's more comfortable (it's not) or because it costs less (it doesn't), but because it's so clever. The Wireless Link connects to your handheld via the infrared transceiver. That means it's compatible with virtually every model—a huge advantage over all other keyboards we've seen. What's more, it's remarkably compact, and it reflects some ingenious design decisions.

When folded, the attractively styled Wireless Link looks a lot like a PDA. It has roughly the same measurements as Sony's Clie T615C, and therefore slips unobtrusively into any pocket. It weighs just four ounces, and that's with its single AAA battery installed. Unfolded, the Wireless Link reveals a QWERTY keyboard, a small IR window, and a stylus stand. Appreciably absent is any kind of dock.

Instead, your PDA rests on a stand, which itself is another ingenious bit of engineering. It's reminiscent of the screen cover used on the Palm V and m500 series, and in fact can double as just that when not propping up your handheld. (If you don't have one of those models, the stand can ride shotgun with the Wireless Link thanks to a similar silo-type connector.) By now you're probably wondering, "How can the keyboard see the IR port on top of my handheld?" It's all done with mirrors: the stand has an arm that extends over the PDA, reflecting the IR signals to and from the keyboard. Like we said before, extremely clever.

The only Palm OS device that gave us trouble was the Kyocera QCP 6035, as the arm doesn't extend high enough to accommodate its IR port. We tried the stand with a Palm m500, Visor Prism (mirror arm not needed), and Sony Clie N760C, and

it worked beautifully with all three. (It also works with Pocket PCs; we successfully tested the Jornada 568 and Audiovox Maestro.) If you have a Palm V or m500 series model, you can skip the stand altogether and use a special stylus to prop the unit at a comfortable angle. Honestly, the Wireless Link is like Inspector Gadget's keyboard kit.

For another stand-free solution, you can lay your handheld flat on a table with its IR port pointing at the keyboard (the Wireless Link driver lets you rotate the screen in any direction). However, rotating crashed our

Kyocera, so we couldn't use the Wireless Link with that model, period.

The keyboard itself is small and cramped, with the top and bottom rows smaller than the middle row. Many keys are doubled up, including numbers and most punctuation. However, arrow, shift, application, and backspace keys stand alone, as they should.

What's more, the keys offer surprisingly good

feedback, and virtually all Palm OS functions are available as keystrokes. It takes time to get comfortable with the Wireless Link, and touch typists will never truly love it, but it's definitely acceptable for the hunt-and-peck crowd.

At \$119.99, the Wireless Link ranks as the priciest keyboard we've seen yet. It's also one of the coolest and definitely the most versatile. You pay a bit more now, but in theory you'll never need another keyboard, even when you upgrade your handheld. For that reason alone, the Wireless Link Keyboard earns major kudos.

—Rick Broida



With a wireless connection, this keyboard works with virtually any PDA.



The keyboard in its full-size and folded forms.

### CONTACT

Micro Innovations  
[www.mi-products.com](http://www.mi-products.com)  
 Requires: IR-equipped Palm or Pocket PC handheld  
 Version Tested: N/A  
 Size: 42K (driver)  
 Price: \$119.99

### GOOD

Amazingly compact, works with nearly every handheld, lots of clever little extras.

### BAD

Cramped keys, numbers are doubled up, won't work with Kyocera phone, expensive.

### VERDICT

An engineering marvel and a practical solution, but it doesn't dethrone the Stowaway.





## Earthlink Wireless

A better service rises from the ashes of OmniSky

### CONTACT

**Earthlink**  
[www.earthlink.omnisky.com](http://www.earthlink.omnisky.com)  
**Requires:** Palm m-series;  
 Palm Vx with OS 3.5 or  
 higher; or Handspring  
 Visor Platinum, Prism,  
 Edge, Neo, or Pro with OS  
 3.5 or higher  
**Version Tested:** 1.1  
**Size:** 2.3MB  
**Price:** \$39.95/month;  
 annual plan includes free  
 modem; pre-paid annual  
 plan includes free modem  
 and free month of service

### GOOD

Excellent portal software,  
 an above average email  
 client, and innovative  
 location-based services.

### BAD

Occasional crashes.

### VERDICT

It's hard to ask for a better  
 successor to OmniSky.



**W**hen OmniSky closed up shop last year, few would have expected a better wireless access service to fill its shoes. That's exactly what happened, though, when Earthlink stepped up to the plate and inherited OmniSky's subscriber base. New, improved software has now made the online experience even better for Palm and Handspring users, reassuring skittish PDA users that the company's wireless Internet access is here to stay.

Your wireless experience begins with a colorful, well-designed Internet portal that puts all of your most important services right up front. The message center—a trio of icons at the top of the screen—lets you check email, compose a new message, or instant message other Earthlink subscribers.

Earthlink opted to create its own email client instead of simply licensing an existing Palm OS program like the ever-popular MultiMail. The resulting program is a joy to use. The program can accommodate up to ten POP3 accounts, and you can easily retrieve some or all of your mail during each session. Filters let you be selective about email based criteria like subject line and sender. The program even supports quick text—short one-

line messages like "Call me" or "Got your message" that you can quickly pick from a list, and you can add a signature to your outgoing messages. There's even limited attachment support: you can preview Microsoft Office and Adobe Acrobat attachments, and save them as Memo Pad entries. You can also add your own Memo Pad, To Do, Contact, and Date Book attachments to outgoing messages.

In addition to full-scale Web browsing, the Earthlink portal gives you access to a ton of mobile-optimized news, sports, weather, shopping, and entertainment sites. You can build your own front page of favorite sites, or use the browser to go to any Web site you like.

Perhaps the most clever feature in Earthlink's new wireless software is a taste of location-based services. Tap on the Cities icon, for instance, and get access to a list of restaurants, entertainment, shopping, and events. And if you input your current location, your PDA will query a map database and provide you with turn-by-turn directions to reach whatever destination you desire. Earthlink currently supports about 20 cities across the US; we tested it in Denver. The city guide and navigation features worked well, though one option—to get other subscribers' opinions of various locales—is essentially a ghost town. Only time will tell if users vote enough to make this feature valuable.

The attention to detail in Earthlink's software is laudable. A feature called One-Touch, for instance, lets you get to a half-dozen of the most common wireless features instantly, from anywhere in your PDA. Just make a gesture from the menu button up through the application button, and a pop-up menu of choices appears. The portal's title bar is always filled with useful navigation buttons. When in city mode, for instance, you can tap an icon to get a map of the town. When in email, another button automatically adds the email contact to your Address Book. Indeed, only a few hardware resets kept Earthlink from getting a full five stars. We hope that Earthlink adds stability to its to-do list for version 2.

—Dave Johnson



Earthlink's new portal screen features an elegant, easy-to-navigate interface.



## KeyCase

### A keyboard you can roll up

Imagine turning your kitchen placemat into a keyboard, and you get some idea of what it's like to use Logitech's new KeyCase. That's not entirely a criticism, mind you. The KeyCase is engineered from a new "space age" material called ElekTex, which is a strong, bendable fabric that



This flexible keyboard rolls up to double as a protective case for your Palm.

relies on conductive fibers—not wires—to transmit electrical signals. As a result, you can roll it up, squish it, step on it, and generally treat it like an old sock. When you're ready to type, just unroll it. The only rigid part of the keyboard is a Universal Connector—

equipped cradle into which you snap your Palm. You can even wrap the keyboard around your PDA and use it like a soft case—hence the name.

The keyboard is about 10 inches across and features keys that are about 75% of full size. Typing on this rug takes a little getting used to, since there's no key "travel" and the keyboard itself tends to flex up and down a bit as you type. To add to the learning curve, the KeyCase can't sense simultaneous keypresses, so you need to press-and-release the Shift key, then press the key you want to capitalize.

You can program a slew of shortcut keys to launch favorite apps, and the keyboard includes handy keys for making text selections, cut, copy, and paste—you'll almost never need to use the stylus. The KeyCase has a smart layout with a plethora of features. The downside? Even after weeks of using it, our typing speed never matched what we could achieve with a traditional fold-up keyboard.

—Dave Johnson

### CONTACT

Logitech  
www.logitech.com  
Requires: Palm m125, m130, m500, m505, m515, or i705  
Price: \$99

### GOOD

Fold it, bend it, squish it—even wrap it around your Palm. It still springs back.

### BAD

Can press only one key at a time; squishy cloth slows you down.

### VERDICT

This flexible keyboard is the stuff sci-fi novels are written about, but typing is undeniably slower.



## TypeAway

### A great keyboard hobbled by a hinge

The popularity of the Stowaway keyboard—which folds up as small as a deck of cards—was bound to eventually spawn imitators. Logitech's TypeAway pays its respects to the Stowaway concept by folding down to a frame that's just a bit larger than your PDA and only half an inch thick.

Any Palm with the m-series Universal Connector can slip into the TypeAway's small cradle, and typing feels fairly natural, with keys that have a short travel and satisfying click when you press them. Unfortunately, the keyboard splits down the middle—that's where the hinge is located—and it separates the two halves of the keyboard by almost three-fourths of an inch. We found the gap made typing uncomfortable, especially when we were aiming for keys that should be close together (like T and Y or G and H). If you use a split keyboard on your desktop, it may not bother you.

Logitech's driver for the TypeAway arms you with a wide array of modifiers. You can set up nine special command keys to launch favorite applications, and there are 10 more function keys for launching programs, accessing the backlight, and other goodies. Special commands common to most Palm OS apps—like creating a new document, opening a note, displaying details, and tapping OK—are all on the keyboard as well.

As much as we wanted to like the TypeAway, we never could get used to the wide gap down the middle of the keyboard; our fingers consistently got hung on the edges of the keys when trying to type keys that bordered on the hinge. If you're a bit more adaptable, though, we think you'll find the TypeAway to be an excellent portable keyboard.

—Dave Johnson



The TypeAway feels almost like a full-sized keyboard, yet it has a tiny footprint when stowed.

### CONTACT

Logitech  
www.logitech.com  
Requires: Palm m125, m130, m500, m505, m515, or i705  
Price: \$79

### GOOD

Very thin, good key layout, two-in-one functionality.

### BAD

Wide trench down middle of keyboard can make for clumsy typing.

### VERDICT

If you can, try before you buy—only then will you know if the hinged center will bother you.





## CONTACT

Portable Innovation  
Technology  
www.pitech.com  
Requires: Palm OS 4.0 or  
later, VFS compatibility, or  
MemPlug  
Version Tested: 1.1.5  
Size: 87K  
Price: \$14.95

## GOOD

Works with virtually any  
kind of memory card; sup-  
ports automated backups.

## BAD

Annoying registration  
process.

## VERDICT

An excellent solution for  
those who want to make  
mobile backups.



## PiBackup II

### No more excuses for not making backups

One of the best reasons to own an expandable Palm Powered handheld is the ease of making on-the-fly backups. If you're on the road and something flaky happens, you can easily restore your data. But rather than buying a special backup card, why not use a regular memory card that can store a backup and your extra apps and data? All



In advanced mode, you can  
include/exclude individual files  
from backup or restore operations.

you need is  
the right soft-  
ware, which  
in this case is  
PiBackup II.

This  
utility copies  
the contents  
of your  
handheld's  
memory to a  
folder on any  
memory card  
(including  
SD/MMC,

CompactFlash, and Memory Stick media, and the developer's own MemPlug Visor modules). It also copies itself, so you won't lose the means to restore your files if the internal memory gets wiped out.

In Basic mode, the software couldn't be simpler: just tap the large Backup icon or the restore button as needed. In our informal tests, it took just 90 seconds to back up roughly 7.5MB of apps and data from a Clie N760C to a Memory Stick. In Advanced mode, PiBackup II allows you to schedule daily or weekly automated backups—a handy feature for forgetful users. Should certain files (like VFS utilities) prove troublesome to back up, you can use the Exception List to exclude them. This mode also lets you choose individual files for backup or restore.

Our biggest gripe is a minor one—the app requires you to supply an annoyingly lengthy registration code in order to register. Backups are an essential part of handheld computing, and PiBackup II makes them fast and easy.

—Rick Broida

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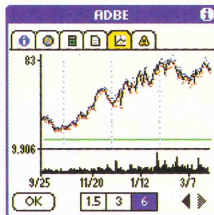
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# PALM 101

## THE FAQ FILES

## Upgrades and Other Conundrums

by Calvin O. Parker

In each issue, Palm FAQ-master Calvin O. Parker answers questions large and small, simple and technical. Send yours to [calvin@hhcmag.com](mailto:calvin@hhcmag.com)

**I am upgrading from Palm Vx to Sony Clié T615C. The T615C will not beam or receive data via the infrared port, and I do have "Beam Receive" on in Prefs. Do I have to initialize something first?**

Apparently there were a few T615Cs that exhibited this problem. The solution seems to be to download the Irc Library(v.1.1) Update from the Sony support site. You can find it at [www.ita.sel.sony.com/support/clié/t615/softupdates/](http://www.ita.sel.sony.com/support/clié/t615/softupdates/)

**Where can I get a color counterpart to use with Outlook? I use this on desktop and Sony Clié N760C. I want to continue to use Outlook, but I would like to be able to add color to my Date Book entries.**

While there are applications like DateBk5 that allow you to change the color of events in your Date Book on the device, none of this information is transferred to the Palm Desktop or Outlook. So you can have color on both your desktop and handheld, but you'll have to do all the "colorizing" of your entries manually in both locations.

**How do I get started writing Palm OS applications/games?**

I'd recommend starting with a good book (these are available in a variety of programming options, like C programming, Basic programming, etc) before you actually purchase any development software. Last time I checked there were over a couple dozen of them. Go to your favorite online bookstore and search for "Palm Programming" to find them.

Another option is to go to the "Getting Started" page at PalmOS.com (the site run by PalmSource, Inc). Find it at [www.palmos.com/dev/start/](http://www.palmos.com/dev/start/). And don't miss Greg Winton's Palm OS programming tutorial on our [www.hhcdeveloper.com](http://www.hhcdeveloper.com) web site.

Erase all data?  
YES - "up" button  
NO - any other button

The hard reset confirmation screen allows you to clear all information from your handheld.

**I've just upgraded from a Palm III to an m515. The Palm m515 was purchased used from a colleague who had it for only 2 months. I'm having a problem trying to HotSync my profile to the new (used) Palm, which has his name as the user. I've tried everything to overwrite his name, with no success. What do I need to do?**

What you're looking for here is a "hard reset", which basically erases everything (applications, data, etc) off of your handheld, restoring it to the state it was in when it was first removed from its box.

To perform a hard reset, press the reset button located on the back of the handheld (some models include a "tool" to do this in one end of the stylus. If not, a bent paperclip works great), while holding down the power button. After the Palm logo appears, release the power button and you'll see the hard reset confirmation screen. Press the page up key to erase all of the data and user information stored in the handheld. After the hard reset, perform a HotSync operation and select the user name you used on your original handheld.

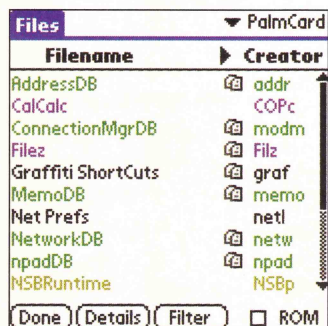
If you'd like to keep some of the applications on your buddy's handheld, then you'll want to perform a HotSync operation before you perform the hard reset, which will back up all the information and applications to your computer. Once you have done the hard reset, you can go to the backup directory



Calvin's FAQ Files are brought to you by [PalmGear.com](http://PalmGear.com). See Calvin's FAQ page online at [www.palmgear.com/faq](http://www.palmgear.com/faq)



(usually located at C:\Palm\username\backup) and double-click the applications that you'd like reinstalled on your handheld.



You can use Filez to determine the Creator ID of mystery database files.

**I downloaded a .PDB file, and don't know what application I need to use to look at it or use it. What do I do to find this out?**

The easiest way is to check with the site you downloaded the file from, and see what program they say you should use to read or view the file. Also, most files of this nature will include a "readme.txt" file or something similar that tells you what application you need to read the file.

However, if you can't find this information, you can still determine what file you need in most cases. You'll need to know what type of .PDB file it is you've installed, and then that will narrow down what needs to be installed to read it. To do this, you'll need to determine the database's "Creator ID."

To figure this out, you'll need to a program like Filez ([www.nosleep.net/software.asp](http://www.nosleep.net/software.asp)) to determine the creator ID for the database file. You can then use that creator ID to figure out what application you need to download/install by browsing the creator ID database at [dev.palmos.com/creatorid/](http://dev.palmos.com/creatorid/).

**I would like to purchase Palm versions of Bejeweled and Mahjong, as I have tried them on my Handspring Visor Edge and Neo, but I have a question. I own two handhelds and I need to know that I can use the purchased download on both them. I will not buy two, one for each, so please do let me know.**

Unfortunately, because you probably have separate user names for each handheld, you'll have to have two different registration codes. Most applications that use registration codes build them from your user name, so the codes will differ on each handheld. Using the same user name on multiple handhelds can lead to conflicts, so that's not an alternative. Your best bet is to write Astraware and explain the situation and see if they offer an alternative.

**I was reading a tip that said that you can tap the date in Date Book and it will show you the current time. When I do that, it causes the pull-down menus to appear instead. How can I get it just to show me the time? Am I missing something?**

Starting with Palm OS 3.5, tapping the screen title brings up the menu list. To display the time in the Date Book application, you have to tap and hold the data at the top of the screen to display the time.

**I'd like to purchase a modem for my Palm Vx, but don't see them listed on Palm's store page, nor have I been able to find one locally. Any idea where I can find one?**

The Palm V/Vx modem hasn't been sold for some time now. However, it looks like Harmony Computers ([www.shopharmony.com](http://www.shopharmony.com)) still has it for sale. Search for part number 10401U. As of this writing, they have them in stock for just \$24.



Rick Broida Vs. Dave Johnson

# All Thumbs

**Keyboards are making a comeback. Is Graffiti dead, or just getting some healthy competition?**



## What do you think?

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**RICK:** Interesting things afoot—or should I say, at hand—from Handspring. The new Treo 90 borrows the design of the Treo 180 smartphone, but gets rid of the phone. We're left with a fairly standard Palm OS handheld that has a Blackberry-style keyboard instead of Graffiti. Meanwhile, there's been an explosion of thumb-style keyboards for other Palm models, and now even Sony's in on the act. What's going on here?

**DAVE:** As usual, it's companies looking for the answer to a problem that doesn't really exist. Graffiti works well. Amazingly well, in fact. Not to drag my mom into this, but even she could learn Graffiti in an hour or two, and it's more accurate than almost any other kind of input system. Worst of all, these other keyboards are, when you get right down to it, slower than Graffiti. So who are all these things for?

**RICK:** I'll do you one better—my mom is using Graffiti! Still, I think Handspring hopes to appeal to the folks who still find handhelds intimidating. Anyone can operate a keyboard—even you—so the learning curve really plummets (not that it's very high to begin with). Plus you have a color screen, lots of memory, industry-standard expansion (farewell, Springboard!), and a decent price. Who knows—maybe the Treo 90 will catch on. But will it be because of the built-in keyboard?

**DAVE:** I beg to differ, Keyboard Man. I'd say that the clumsy little Treo keyboard is harder to use than any decent handwriting system, including Graffiti. A handheld sprinkled with keys like they were dispensed from a salt shaker (I'm looking at you, Treo) seems imposing, and a few minutes alone with such a device proves that it's just too darned hard to enter text quickly and reliably. Any salesperson should be able to demonstrate the magic of Graffiti in seconds, though, and most people should then be able to see its potential. Or there's the best of both worlds—a PDA like the Sony Clie NR70, which has both Graffiti and a reasonably decent keyboard.

**RICK:** Where are these magical salespeople who are demonstrating Graffiti? People buy a handheld based first on what they see, second on what they've heard, and third on what they know. Someone who's new to the devices will say, "Oh, a keyboard, I can use that," without giving a thought to Graffiti (which, for most, is an unknown entity). You always assume too much knowledge on the part of everyday consumers. If Graffiti is so wonderful (and I'm not saying it isn't), why do Fellowes, Kensington, Seiko, and a bunch of other companies offer clip-on Blackberry-style keyboards for handhelds?

**DAVE:** Now you've changed the topic again, as you commonly do when you're losing. So, since you bring it up, salespeople: ugh. Apple's Newton failed because salespeople didn't understand what they were selling and let customers "discover" handwriting recognition on their own, which ended up being an unmitigated disaster. Just the other day, I went into a computer superstore and asked the sales-dude about the Clie NR-70V on display. Unfortunately, not a single person on staff knew anything about the device. They weren't even sure if it ran the Palm OS. "I think it's a special operating system that Sony wrote themselves," one pimply kid told me. Another: "The screen is great because it has the same resolution as a laptop computer." That's why Fellowes sells a thumb keyboard for the Palm: because salespeople probably tell customers it can improve their cell phone reception.

**RICK:** I changed the subject? You brought up salespeople, you senile old man. Funny how you utterly failed to address my point about keyboard alternatives to Graffiti. I've tried them all, and the only one worth using is the Seiko ThumbBoard. Personally, I think hybrid solutions like the Clie NR70 are the way to go. Stylus or keyboard—whichever one you want, whenever you want.

**DAVE:** The bottom line is that the market will decide whether these BlackBerry keyboards succeed. What surprises me is that the keyboard version of the Treo is selling well enough that the color Treo 270 is only available with a keyboard—and that, regrettably, is the showstopper that'll keep me from buying one. Instead, I now see myself purchasing the Clie NR70, which, as we've said, is the best of both worlds. For the most part, though, I'm an unabashed Graffiti fan, and I suspect most other people would be as well if they gave it a chance.



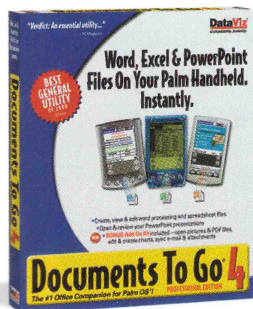
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